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HEC-HMS for the Sacramento and San Joaquin River Basins Comprehensive Study

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14. ABSTRACT

The Sacramento District was directed by the U.S. House of Representatives to develop comprehensive flood control plans and develop hydrologic and hydraulic models of the Sacramento and San Joaquin Rivers after flooding that occurred during the 1980s and 1990s. The Hydrologic Engineering Center (HEC) helped to develop of the hydrologic models. HEC used the Hydrologic Modeling System (HEC-HMS) software and introduced the HEC-GeoHMS software to perform the hydrologic study. HEC developed and calibrated 33 individual HEC-HMS models for the major tributaries and portions of the valley floors of the Sacramento River and San Joaquin/Tulare Lake Bed Basins. The snowmelt portion of the study was performed by the Cold Regions Research and Engineering Laboratory (CRREL). CRREL used their Distributed Snow Process Model (DSPM) to create a gridded snowmelt/precipitation for the study.

Appendix D is a separate document (PR-46a) and contains the calibrated HEC-HMS models for thirty-three basins.

15. SUBJECT TERMS
HEC-HMS, Sacramento River, San Joaquin River, flooding, HEC-GeoHMS, snowmelt, precipitation, CRREL, HEC, Sacramento District, DSPM, flood events, California, ecosystems, flood control, hydrologic models, hydraulic models, Tulare Lake Bed, Sierra Nevada, DEM, digital elevation model, homogeneous, spatial data transfer standard packages, SDTS, topographic, terrain grids, data acquisition, HEC-DSS, metadata, peak flow, watersheds, data visualization

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Acknowledgements

The hydrologic modeling for the Sacramento and San Joaquin River Basins Comprehensive Study was performed at the Hydrologic Engineering Center (HEC). The areas modeled included the Sacramento River Basin and the San Joaquin River / Tulare Lake Bed Basins. HEC's Geospatial Hydrologic Modeling Extension (HEC-GeoHMS) and Hydrologic Modeling System (HEC-HMS) programs were used to develop calibrated hydrologic models for the basins' major tributaries and much of the valley floors.

HEC divided the modeling effort into eleven modeling teams with twelve HEC employees performing the modeling. The modelers were: Cam Ackerman, Gary Brunner, Bill Charley, Mary Briant, Nathan Pingel, Tom Evans, Bill Scharffenberg, Matt McPherson, Heather Henneman (Chicago District), Harry Dotson, Marilyn Hurst, and Chris Dunn.

In addition to the basin modeling, significant contributions were made by the following HEC staff: James Doan, Project Manager for the GeoHMS software development, was responsible for assistance with GeoHMS and the correction of any bugs or problems found during the GeoHMS modeling process; Tom Evans was solely responsible for the development of the precipitation grids through HEC's GageInterp program (the precipitation grids were given to the Corps' Cold Regions Research and Engineering Laboratory for conversion into snowmelt grids); Matt McPherson collected and assembled the DEMs that were used for the study; Marilyn Hurst worked with the data acquisition contract and with the consultant, Northwest Hydraulic Consultants, Inc. (to ensure that the goals of the contract were fulfilled) and organized and distributed individual packages of data to the modeling teams, as appropriate; Harry Dotson, as the lead hydrologic modeler, developed the modeling guidelines for the teams, provided modeling assistance, and performed the parameter regression analysis; Bill Scharffenberg was responsible for the development of HEC-HMS and provided assistance to all the modeling teams during the HEC-HMS model development.

Chris Dunn, Marilyn Hurst, Harry Dotson, Matt McPherson, James Doan and Tom Evans also made significant contributions toward the writing of this report. Josie Garcia performed the word processing tasks associated with the report, and Mary Briant and Marilyn Hurst worked diligently in assembling the report. Chris Dunn was HEC's Technical Manager throughout all phases of the study.

A special note of acknowledgment must be given to Heather Henneman. Ms. Henneman came to HEC through the Corps' Professional Development Program looking for experience with hydrology and GIS and was instrumental in developing a number of HEC-HMS models. In addition, she wrote a condensed version of the GeoHMS User's Manual that was used by all of the modeling teams.

All investigations of the snow processes in this study were conducted by members of the Engineering Research and Development Center Cold Regions Research and Engineering Laboratory (ERDC/CRREL). Tim Pangborn led the ERDC/CRREL team. Steven Daly developed and ran the Distributed Snow Process Model, DSPM, that was used to estimate the

snow water equivalent, SWE, and snowmelt through the study area. Tim Baldwin, Susan Taylor and Rosa Affleck assisted in the calibration and operation of DSPM and analysis of the results. DSPM required as input temperature, precipitation and initial snow water equivalent (SWE) grids. Elke Ochs led the GIS effort in the development of the temperature grids; the development of the initial SWE grids based on the snow covered area (SCA) estimated from remote sensing and point measurements; and, GIS to DSS transfers. Steven Daly and Robert Davis contributed to the algorithms used in the development of the air temperature and initial SWE grids. Tim Baldwin also contributed to the GIS effort. Robert Davis led the team that determined the initial SCA distributions based on satellite imagery. The team included Janet Hardy, Katy Tooke (a Dartmouth college intern), Emily Bryant, and Bob Bolus.

Members of the Sacramento District office who assisted with the hydrologic modeling were Marchia Bond, Bob Collins, John Hickey, Tom Patton, Kevin Richardson, and Laurine White. John Hickey was also the District's Point of Contact during HEC's involvement in the Comprehensive Study. He helped to establish design guidance, assisted in the accumulation of hydrologic data and was instrumental in acquiring the reservoir data. Mr. Paul Pugner, Chief of the Sacramento District's Water Management Section, provided valuable perspective and direction for the study.

Northwest Hydraulic Consultants, Inc. collected the hydrologic data under the Data Acquisition Task Order. Ed Wallace and Larry Karpack collected and processed a large quantity of data in a very short time frame. Their innovation and flexibility while working under the contract was commendable. The data collected will be used by the Corps and agencies outside of the Corps for years to come.

Mr. Michael Burnham, Chief of the Water Resource Systems Division, was HEC's Comprehensive Study Project Manager and provided direction, guidance, and consistency throughout the study. Mr. Darryl Davis was the Director of HEC during the modeling effort.

Executive Summary

Due to several large and damaging flood events on the Sacramento and San Joaquin Rivers (California) during the 1980s and 1990s, the U.S. House of Representatives directed the Sacramento District to develop comprehensive plans for flood control for the two rivers and to develop hydrologic and hydraulic models of the river systems. The models will be used to provide better forecasts and evaluations of flood damage reduction alternatives. Additionally, the model results will be used as input for reservoir simulation models. The Sacramento River Basin and the San Joaquin River / Tulare Lake Bed Basins comprise nearly 60,000 square miles, drain California's central valley floor and receive much of their runoff from the Sierra Nevada mountain range. Developing hydrologic models for the tributary basins (which included extremely variable terrain) within a ten month time period was a formidable task. The District contacted the Hydrologic Engineering Center (HEC) to assist with the development of these models.

HEC used the Hydrologic Modeling System program, HEC-HMS, and introduced the HEC-GeoHMS grid-based technology to perform the hydrologic study. GeoHMS is an ArcView® extension that provides automated subbasin delineation methods and calculates many physical characteristics used for estimation of hydrologic parameters. HEC developed and calibrated 33 individual HEC-HMS models for the major tributaries and portions of the valley floors of the Sacramento River Basin and the San Joaquin River / Tulare Lake Bed Basins.

GeoHMS was used to delineate the individual river basins, perform initial subbasin delineation and develop the physical characteristics for the subbasins. Tools within GeoHMS allowed the modelers to iteratively redelineate their subbasins, as appropriate, to meet project needs. Keeping the modeling effort consistent was critical to the success of the study. To ensure this consistency of procedures and results, HEC developed modeling guidelines that each of the 11 modeling teams followed.

Once the grid-based HEC-HMS models were developed, HEC contracted with the Corps' Cold Regions Research and Engineering Laboratory (CRREL) to perform a snowmelt study for the watersheds. HEC provided a gridded precipitation file (4 km^2) to CRREL. Through the use of their Distributed Snow Process Model (DSPM), CRREL then provided a gridded snowmelt/ precipitation file to HEC. DSPM computes snowmelt and rainfall depths at the soil surface on a grid-cell basis. This data is used directly by HEC-HMS as precipitation on the watershed. The ModClark rainfall to runoff transformation was used to compute the subbasin hydrographs.

HEC-HMS parameter optimization models were developed at hourly flow gages for the unregulated headwater streams. The runoff parameter optimization models allowed the modelers to develop the runoff parameters necessary for the regression analysis. A number of physical characteristics were evaluated for correlation with variations in Clark's time of concentration, TC, for the optimization models. The results of the regression analysis allowed the modelers to populate the ungaged subbasins with appropriate unit hydrograph parameters. Approximately 200 hourly flow gages and 83 reservoirs were considered in calibrating the models. The 33 individual basin models were then given to the Sacramento District.

The Sacramento and San Joaquin/Tulare hydrologic modeling effort was HEC's first large-scale attempt in developing hydrologic models using gridded data and GeoHMS. Because of the size of the project and the short time frame, the models had to be developed efficiently and consistently across a large geographic area. HEC-HMS and HEC-GeoHMS proved to be significant assets in completing this study on schedule.

Chapter 1

Introduction

Due to several large and damaging flood events in the state of California during the 1980's and 1990's (most notably the January 1997 event), the Governor of California assembled a Flood Emergency Action Team. The team was to develop recommendations on how the impacts of future flood events could be reduced and ecosystems restored. One of their recommendations was to perform a detailed comprehensive study of the entire Sacramento and San Joaquin River systems. The U.S. House of Representatives funded the study through the 1998 Energy and Water Development Appropriations Bill and directed the U. S. Army Corps of Engineers (USACE) to develop comprehensive plans for flood control and to construct hydrologic and hydraulic models of the river systems.

The Sacramento and San Joaquin River Basins (along with the Tulare Lake Bed Basin) include approximately 60,000 square miles of extremely variable terrain. Developing hydrologic models for these basins within a ten month time period was a formidable task. The Sacramento District understood that the hydrologic models would be useful for both planning purposes and in making basin-wide flood operation decisions during flood events. The District contacted the Corps' Hydrologic Engineering Center (HEC) for assistance in the development of the models.

The hydrologic modeling performed by HEC consisted of the development of hydrologic models for all major tributaries to the Sacramento River, San Joaquin River and Tulare Lake Bed. Calibrated models upstream of all major reservoirs were developed. Selected locations downstream of the reservoirs and significant portions of the Sacramento and San Joaquin valley floors were also modeled. Included with the modeling process were data assembly, storage and manipulation. This report details the process by which the hydrologic models were developed.

1.1 Authorization and Scope

The U.S. House of Representatives, in their Report (105-109) on the Energy and Water Development Appropriations Bill, directed the Corps of Engineers to conduct a comprehensive study of the Sacramento and San Joaquin River Basins. The study was to include: (1) a post-flood assessment of the Sacramento and San Joaquin River Basins, (2) development of comprehensive plans for flood control and environmental restoration, and (3) development of a hydrologic/hydraulic model of the system including evaluation of the reservoir operations.

1.2 Location

The Sacramento River Basin covers a 27,000 square-mile area, approximately 240 miles long and up to 150 miles wide. The basin is bounded by the Sierra Nevada Mountains on the east, the Coast Range on the west, the Cascade and Trinity Mountains on the North, and the

Delta-Central Sierra on the south. The terrain is highly variable with steep mountainous streams in the headwaters and an extremely flat valley floor. Due to the orographic effect of the Sierra Nevada's mountain range, the precipitation is highly variable. The majority of the valley floor is protected from flooding by an intricate system of levees, weirs, and flow bypasses.

The combined San Joaquin River and Tulare Lake Bed Basins cover an area of approximately 32,000 square miles. These basins are bounded between the Sierra Nevada Mountains on the east, the Coastal Range on the west, and extend from the southern boundary of the Tulare Lake Bed to the Sacramento-San Joaquin Delta near Stockton. The variable terrain and precipitation are similar to those in the Sacramento Basin; however, the system of levees and canals is even more intricate than those in the Sacramento Basin. The geographic locations of the Sacramento River, the San Joaquin River and the Tulare Lake Bed Basins are shown in Figure 1-1.

1.3 Modeling Summary

HEC used the Hydrologic Modeling System, HEC-HMS (HEC, 2000a), program to perform the hydrologic study. Because of the size of the study and the short deadline, HEC incorporated GIS technology to expedite the modeling effort. At the beginning of the study, HEC was actively working with the Environmental Systems Research Institute, Inc. (ESRI), under a Cooperative Research and Development Agreement, to develop an ArcView® (ESRI, 1998a) Geospatial Hydrologic Modeling extension named HEC-GeoHMS (HEC, 2000b). GeoHMS performs automated subbasin delineation and calculates estimates of the physical characteristics used for the estimation of hydrologic parameters. For the first time on a major hydrologic study, HEC used GeoHMS to assist in the hydrologic model development. HEC developed and calibrated 33 individual HEC-HMS models for the main tributaries and portions of the valley floors of the Sacramento and San Joaquin Rivers / Tulare Lake Bed Basins.

Figure 1-1. Sacramento River, San Joaquin River and Tulare Lake Bed Basins

Chapter 2

Digital Elevation Model Construction

Because of the large geographic area to be studied, the short time frame, and the need for consistent procedures and results, the developing GeoHMS/GIS technology was used to expedite the modeling effort. Considerable time was saved by using GeoHMS to develop the HMS hydrologic data structures, HMS schematics, basin geometry, and many physical characteristics used for the estimation of runoff parameters. Because GeoHMS requires Digital Elevation Models (DEMs) as input, terrain tools found in ArcInfo® GIS (ESRI, 1998b) and ArcView® GIS were used to assemble and correct the DEMs for the study area. Additional information on GeoHMS can be found in "Chapter 4, Hydrologic Model Construction".

Since GeoHMS relies almost exclusively on topographic information contained within the DEM grid, creating these terrain grids used in this study demanded substantial care and attention. The effort succeeded in providing suitable grids for all of the study area, including the central valley floor (where there was concern that the accuracy of the grid data would fail to represent the subtle elevation variations). The grid development effort broke new ground for hydrologic modeling at HEC, yielding both data and processing techniques applicable to other studies.

The Sacramento and San Joaquin Comprehensive Study began prior to the availability of the hydrologically-corrected version of the National Elevation Dataset (NED) from the United States Geological Survey (USGS). Since the NED was not available at the time, Unix shell scripting and Arc Macro Language (AML) was used to mosaic the DEMs, make corrections to the DEMs and perform some initial drainage analysis. Now that the NED is available, it should simplify the computer logistics required of the terrain grid construction process.

2.1 Data Source and Selection

The size of the study area and the preference that data and methods used in various basins be as homogeneous as possible, restricted potential data sources. Therefore, USGS DEMs were used. Both 90-meter and 30-meter (the width of a single grid cell) versions of DEMs were available from the USGS on the Internet at *edcftp.cr.usgs.gov/pub/data/DEM/*. Unfortunately, retrieving DEMs through the web interface and ftp site was not an efficient mode for large data transfers. Consequently, HEC staff used ad hoc ftp scripts to scour the Internet website *edcftp.cr.usgs.gov/pub/data/DEM/7.5min/*, and downloaded all available 10-meter and 30-meter DEMs for California (and a few from southern Oregon). This process resulted in 4115 files, totaling 743 megabytes.

The area covered by each DEM corresponds to a 7.5-minute quadrangle, and came in Spatial Data Transfer Standard (SDTS) packages. Each package consisted of a compressed tape archive, containing various files with consistent names and contents. The downloaded data covered 2903 quads, including all but two of the quads in California. Data for those two quads

were provided by the USGS Rocky Mountain Mapping Center in the standard USGS DEM format.

Initially, it was determined that the 90-meter DEMs would provide sufficient detail for the high relief headwater tributaries. However, because the more detailed 30-meter DEMs were available for the entire study area and would provide a homogeneous grid, HEC decided to use 30-meter DEMs for the entire area. As a backup plan, HEC used the procedures established by GridParm (HEC, 1996) to develop a grid for the Sacramento River Basin based on 90-meter DEM data.

2.2 Source DEM Characteristics

DEMs often had multiple "resolutions", "levels", and "versions" for each quad. "Resolution" specified whether the DEM grid cells measured 10 or 30 meters on a side. An averaging technique enabled data from 10-meter grids to be used for filling in a few holes in the 30-meter data coverage. "Level" referred to the analytic technique used in creating the DEM from the published topographic map. Level 2 techniques were used, instead of Level 1, because Level 2 procedures yielded grids that were better suited for drainage analysis. "Version" number referred to the chronological development of the DEMs (for a given resolution and level). The highest version number indicated the most recently generated DEM.

Despite appearing as a homogeneous data set coming from the same agency, the 2905 DEMs used in the study displayed a number of inconsistencies. Since the USGS derived the DEM data from its published 7.5-minute topographical maps, many of the characteristics from the source quad carried through to the DEM product.

All of the data came projected in Universal Transverse Mercator (UTM). However, about half of the data fell in UTM Zone 10 and half of the data fell in UTM Zone 11. Of the 2905 DEMs, 2895 DEMs used the North American Datum of 1927 (NAD27) for the horizontal datum. The remaining 10 DEMs, all in UTM Zone 10, used the NAD of 1983 (NAD83) for the horizontal datum. All of the DEMs used metric units for horizontal distances.

Inconsistencies in projection and horizontal datum required converting the grids to a common set of projections and datums before merging them together. The UTM Zone 10/NAD27 DEMs formed one intermediate grid. The UTM Zone 11/NAD27 DEMs made up a second grid, and the ten UTM Zone10/NAD83 DEMs were assembled into a small third grid. The next step was to convert each of these three grids to a common projection (described in "Section 2.3, Target DEM Characteristics") and to combine them into a single grid.

Inconsistencies in the vertical units and datum proved to be more challenging. About 85 percent of the vertical data were in meters, and the remaining vertical data were in feet. Whether the data were expressed in meters or feet, the USGS rounded the values to the nearest whole number. The default rounding often caused trouble along the edge lines when combining adjacent DEMs with different units. Converting the units of one DEM to that of the other DEM created artificial discontinuities along the seam. These discontinuities typically caused problems

in very flat areas that straddled quad boundaries, such as lake surfaces. Erroneous drainage analyses resulted from representing one half of a lake slightly higher than the other half. An example of this kind of situation can be seen in Figure 2-1. In this case, three DEMs with elevations in meters and one DEM with elevations in feet intersected in the middle of Folsom Lake. The DEMs with elevations expressed in meters indicated the water surface to be 1420 meters throughout the upper portion of the lake; however, the DEM with the elevations expressed in feet indicated an elevation of 4660 feet (1420.04 meters) in the southwest quadrant containing the outlet. Combined with an inadequate representation of a side dam, this 4 centimeter difference caused the GIS representation of the drainage from Folsom Lake to be incorrectly located. To resolve inconsistencies of this type, manual editing (using ArcInfo® GRID editing tools) was required for approximately a dozen of these situations.

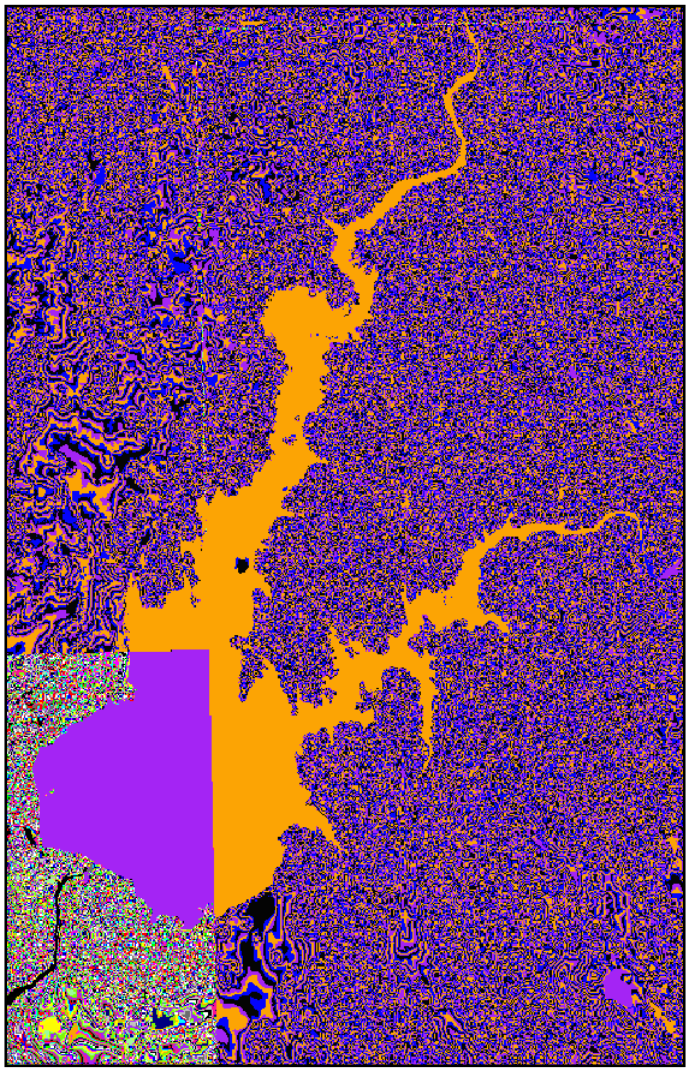


Figure 2-1. Example of DEM Units Inconsistencies Resulting in Artificial Discontinuities of Quad Boundaries Occurring within a Flat Surface (Folsom Lake, NGVD)

To merge the DEMs together, the grid elevations required adjustments to a common vertical datum. Approximately 2835 of the DEMs used NGVD (National Geodetic Vertical Datum or MSL 1929), while the remaining 70 DEMs listed the elevation reference as Local Mean Sea Level (LMSL). These 70 DEMs were predominantly located in the Sacramento River Basin but showed no apparent pattern to their distribution. Initially, the vertical datum solution seemed simple because, whether the DEM listed its elevations as NGVD or LMSL, the USGS always included a conversion to NAVD (North American Vertical Datum or MSL 1988). For reasons described in "Section 2.3, Target DEM Characteristics", NAVD proved less desirable as the common vertical datum, and the final grids used NGVD.

The analytic techniques for creating DEMs continues to evolve while the USGS assembles and updates its 30-meter coverage. The revised techniques result in some quality variations within the dataset. Of the 2905 quads, 2813 featured a Level 2 DEM, while the remaining 92 had only Level 1 data. The manually profiled (Level 1) DEMs tended to exhibit a "washboard" effect, with the data appearing as a series of wavy horizontal ridges. Even though techniques exist for "smoothing" the DEMs to minimize this effect, they were not applied in this study because the drainage analysis seemed to yield acceptable results without such intervention.

Of the 2905 DEMs used, 2852 were version one, 52 were version two, while one was version three. The date of the original source topographic maps varied considerably among the DEMs: 7% dated from the 1990's; 27% from the 1980's; 16% from the 1970's; 10% from the 1960's; 9% from the 1950's; and, 3% from the 1940's. The remaining 28% failed to show the date of the source map. The oldest and newest dates listed were 1942 and 1998, respectively. It seems reasonable to expect that the DEMs included revised data (i.e., the purple features on many topographic maps), but the data sets contained no confirmation.

Even if the DEM data included the latest revisions to the source topographic map, the DEM, by itself, may still inadequately represent the current topography (see Figure 2-2). Built in 1979, the New Melones Reservoir straddles the boundaries of four quads. DEMs for the two southern quads both list dates of 1987 and show the water surface as 322 meters NGVD. The northeast quad fails to report a date. It shows a water surface of 319 meters NGVD. The northwest quad lists the source topographic map as dating to 1962 and does not show the reservoir at all (since the reservoir did not exist). The latest photo-revision of this map occurred in 1973. Again, ArcInfo® tools were used to rectify the discontinuities found with these four quadrangles.

2.3 Target DEM Characteristics

HEC desired to make the input data (and modeling techniques) as consistent as possible for the entire comprehensive study effort. The initial scenario called for generating one large master grid to cover the entire state of California. The master grid was updated and improved as the information became available. For a particular study area, portions of interest were "cut out" of the master grid.

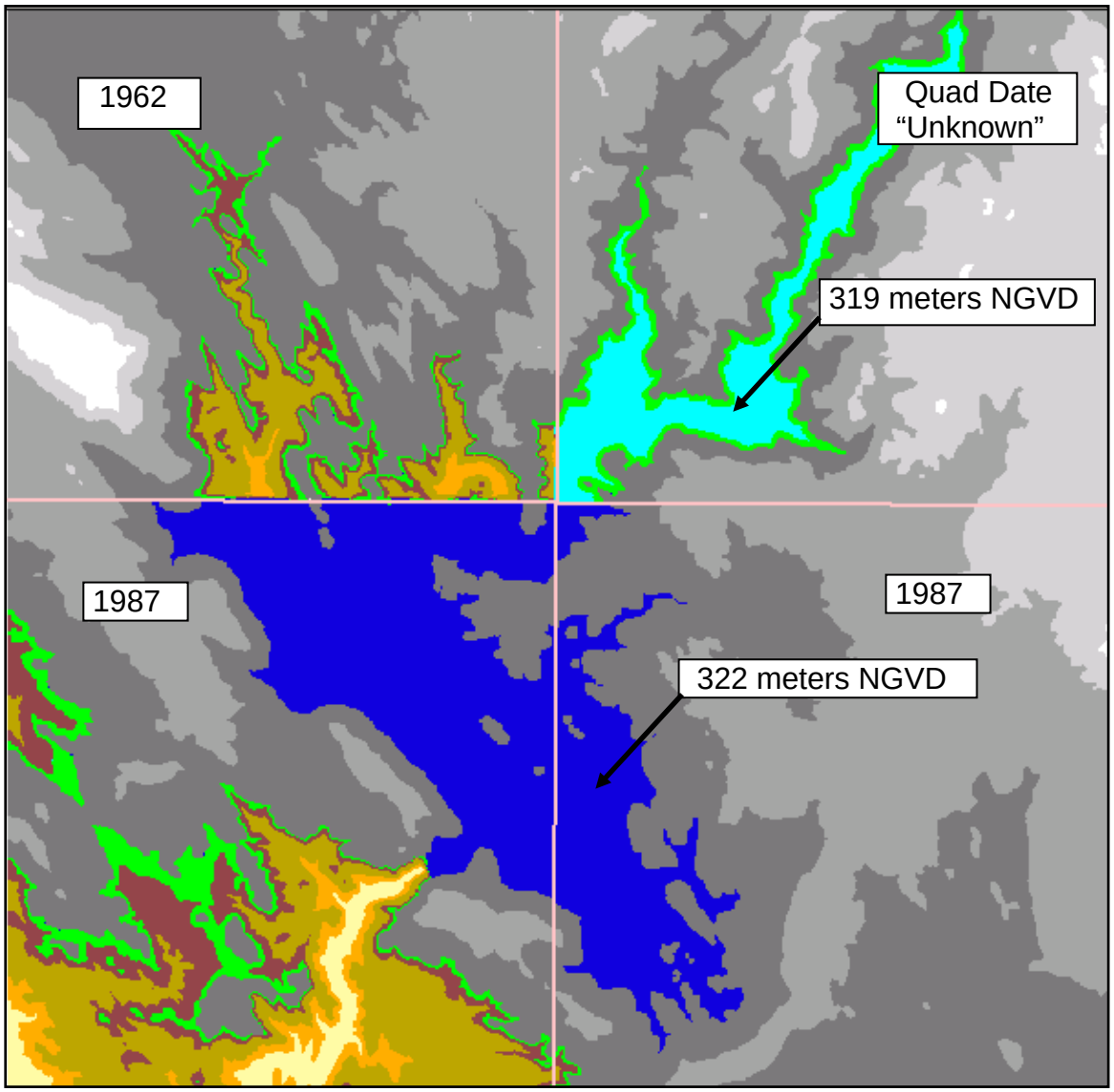


Figure 2-2. Effect of Source Map Age Differences on New Melones Reservoir

Due to the extent of the study area, the projection used for the master grid needed to cover almost the entire state with minimal distortion. A projection advocated by the State of California's Teale Data Center fit the requirements and was convenient for working with other GIS coverages. Digital Raster Graphics (DRGs) referenced the Teale projection, as did the Sacramento District's CorpsView (Ochs, 1997) layers. These data sets plotted adequately alongside the gridded data with no intermediate conversions.

The projection properties used for the DEM data are summarized in Table 2.1. HEC staff made a decision early in the DEM development process that interfered with the DEMs lining up as well as they could with other data layers. Noticing that the Teale projection used NAD27 for its horizontal datum, HEC staff decided to try to improve on NAD27 datum by using the more recent datum, NAD83, instead. Although otherwise identical, this deviation in the projection

properties caused a slight offset of the grid from the other layers. This offset was considered minor and did not influence the delineation of the basins.

Table 2.1 DEM Projection Properties

Projection	Albers Equal Area
1st Std Parallel	34° 00'
2nd Std Parallel	40° 30'
Central Meridian	-120° 00'
Latitude of Origin	0° 00'
False Easting	0
False Northing	-4,000,000
Horizontal Datum	NAD83
Spheroid	GRS1980
Horizontal Units	Meters

Standardizing on a vertical datum and units proved difficult. Elevations for the first grid were converted to NAVD, in the belief that the conversion was necessary to provide a common datum for all DEMs using NGVD or LMSL. This first grid covered the entire state, taking up about 1 gigabyte of disk space. Conversion to NAVD reflected the source data accurately, and served purposes outside of the Sacramento/San Joaquin study, but it proved unsatisfactory for this study for reasons discussed below.

First, during a coordination meeting between HEC and Sacramento District staff, the district expressed a preference for elevations in NGVD. Second, HEC staff discovered that the datum conversion technique introduced artificial discontinuities along the seams between adjacent DEMs. The vertical datum conversion varied with location. For instance, the conversion process added 0.94 meters to one DEM, while 0.96 meters was added to its adjacent DEM, creating an effect similar to the feet vs. meters issue described in "Section 2.2, Source DEM Characteristics". Although these differences amounted to only a few centimeters, they still presented difficulties to the drainage analysis. Since the datum adjustment varied for practically every quad, the conversion to NAVD created drainage analysis problems on every water body that straddled more than one quad boundary.

For these reasons, HEC staff decided to reassemble the DEM data without converting to NAVD. Instead of creating one master grid covering the entire state, one grid was made for the Sacramento River Basin (sac8329), and one grid was made for the San Joaquin River / Tulare Lake Bed Basins (sj8329). This decision enabled the master grids to be more manageable in size, focusing only on the areas required for the study. Additionally, both of these new master grids used decimeters instead of centimeters to avoid a bug in ArcView's Spatial Analyst (ESRI, 1998c) that prevented proper display of cell values greater than a certain magnitude.

By this time, inquiries to the USGS revealed that LMSL should only be found on islands and in the San Francisco Bay and delta regions. Some (or all) of the 70 DEMs labeled LMSL were apparently mislabeled, but no one could definitively explain the situation. The conversion factor supplied with the DEMs in LMSL actually turned out to be the conversion from NGVD to NAVD. After fairly exhaustive correspondence, HEC staff decided to treat the LMSL DEMs as if they were actually in NGVD, and visually check them for serious discontinuities. In general,

this approach worked well in the areas studied with GeoHMS; however, some DEMs in the Central Valley raised suspicions of possible datum errors.

2.4 Intermediate Grid Processing and Assembly

To make a single master grid of the entire state of California (ca30mt88ng), the 2905 grids were mosaiced. To make the two master grids actually used for the Comprehensive Study, 1063 DEMs were mosaiced for the Sacramento River Basin, and 1405 DEMs were mosaiced for the San Joaquin River / Tulare Lake Bed Basins. ArcInfo's GRID allows only 49 grids to be mosaiced at a time. Consequently, combining the DEMs required an intermediate stage, after which the intermediate mosaics were then combined. Each of the 30-meter raw DEM data files for UTM Zone 11 were grouped into directories based on latitude. The UTM Zone 10 files were similarly organized except the NAD83 DEMs were stored into a separate directory.

The ArcInfo® macro "sdtsdem.aml" (and associated shell script "sdtsinfo.s") created an intermediate grid from the raw DEM data in each of these directories. The macro automatically de-archived each DEM package into a temporary directory and ran the script (which returned key properties of the DEM to the macro). The macro imported the SDTS files into an ArcInfo® grid and verified that all the DEMs shared the same horizontal datum, units, and projection. Then, cells that contained the USGS "null" value were converted to the ArcInfo® "nodata" value. Also, obvious incorrect elevations (a 1/10 of a mile underwater, or higher than Everest) were replaced with the "nodata" value.

If applicable, the macro next applied the conversion to NAVD based on the DEM's metadata. The vertical units were then converted into centimeters. Aside from expressing any English system elevations in metric, this conversion also produced an integer grid without significantly rounding the DEM data (or the datum conversion). Integer grids required one-quarter to one-half the disk space of comparable floating grids. Discrete values also provided advantages when inspecting and editing during the final stages of grid preparation.

Finally, the macro mosaiced up to 49 individual grids into an intermediate grid and displayed it for inspection. If any of the component DEMs contained visible errors, the raw DEM data were moved out of the directory for that group and processed separately. After deleting the intermediate grid, the remaining DEMs were similarly processed by running the macro again.

2.5 Special Processing

Considering the amount of data processed, the 30-meter DEMs contained very few errors or omissions. However, the sheer scope of the coverage and the relative immaturity of the data set guaranteed some exceptions to the processing steps previously described. The following situations required alternative processing methods to generate intermediate grids from the raw data:

- The elevations for one DEM that listed vertical units as meters were actually in feet. A copy of the ArcInfo® macro "sdtsdem.aml", with the conversion factor inverted, processed this DEM into its own intermediate grid.
- Two DEMs that listed vertical units as meters experienced a unit conversion mistake that left them at 30.48% of their proper values. A copy of the sdtsdem.aml, with the conversion factor adjusted to compensate for the error, processed the DEMs into an intermediate grid.
- 30-meter DEMs were not found for seven of the quads, although 10-meter DEMs were available for each. Sdtsdem.aml was used to produce a pair of 10-meter grids (one grid for the quads in UTM Zone 10 and the other grid for UTM Zone 11). These were resampled into two 30-meter grids using the ArcInfo® GRID command "blockmean".
- For two quads (one each in UTM Zones 10 and 11), no DEMs of any resolution were available from the USGS website; however, the USGS office in Rolla sent the traditional "native" format DEM data for these two quads. These quads were imported into a couple of intermediate grids using the ArcInfo® GRID command "demgrid". Unit conversions, bogus data filtering, datum adjustments, and integer rounding operations were performed by manually entering the various ArcInfo® GRID commands.

2.6 Final Assembly

At this stage, all of the intermediate grids shared the same grid-cell spacing, vertical datum, and horizontal and vertical units; however, they differed slightly in projection characteristics (UTM zone and horizontal datum). The next step mosaiced together all the intermediate grids with the same projection characteristics and resulted in three grids. These three grids were projected to the common specifications denoted in Table 2.1 and were joined together to form one grid covering the entire state.

For the initial master grid covering the whole state, the final mosaic resulted in a pair of large grids (for UTM Zone 10/NAD27 and UTM Zone 11/NAD27) and a smaller grid (UTM Zone 10/NAD83). The master grids, which focused only on the Sacramento River Basin and the San Joaquin River / Tulare Lake Bed Basins, were trimmed to eliminate unneeded cells outside the study area. The trimming was performed along the major Hydrologic Unit Code (HUC) boundaries, including an expansion of 5 kilometers on all sides.

Each of these three grids was then projected to the specifications described previously. This very computer-intensive process took 2-3 days for the largest grids. Once the three pieces were projected into a common coordinate system, they were mosaiced together into a single grid. The final step used the ArcInfo® GRID command "focalmean" to estimate values for any gaps between grids, based on the elevations in adjacent cells. This process resulted in the following master grids: ca30mt88ng (California master grid), sac8329 (Sacramento master grid), and sj8329 (San Joaquin/Tulare master grid).

2.7 Inspection and Correction

The first step that GeoHMS performs is a drainage analysis over the entire terrain grid. Once GeoHMS establishes the drainage paths, it allows significant flexibility in creating and re-working the delineation of subbasins. However, the current version makes no provision for applying corrections in the original elevation grid to all the various derived data layers. If defects in the DEM data are discovered during the GeoHMS process, the modeler must either correct the inaccuracies later in HMS, or fix the initial terrain grid and repeat the GeoHMS work.

Consequently, HEC staff spent considerable time manually inspecting, editing, and testing the final grids (sac8329 and sj8329) before using them in GeoHMS. Although ArcView's Spatial Analyst proved useful for viewing one of the intermediate grids, commands from ArcInfo® GRID seemed best suited for most of the work. The grid commands lent themselves to a very consistent ("cookbook") approach. Once the appropriate methodology had been developed, HEC staff (with limited GIS background) accomplished most of the work.

The "gridpaint" command, using default arguments, readily highlighted the water bodies with artificial discontinuities. Additionally, a fortunate coincidence of arithmetic between the 16-color scale and 3:1 ratio of English to metric elevation values helped make the units of each component DEM obvious, as illustrated in Figure 2.1. The "gridclip" command extracted a rectangular section of interest from the master grid for editing. The "gridedit" subcommands ("edit", "fillvalue", "fillcell", "fillregion", "fillpolygon", and "save") corrected the defects in these small grids. Then the "fill", "flowdirection", and "flowaccumulation" commands performed the preliminary analysis on the clipped sections. Spatial Analyst in ArcView® conveniently displayed the primary channels determined by the resulting flow accumulation grids. If the drainage analysis failed to produce the correct channels, the editing steps were repeated until successful. Once the small grid covering the problem area was properly corrected, the values in the master grid were updated using the "merge" command. Eight such corrections were incorporated into the Sacramento grid (sac8329) and six corrections were included in the San Joaquin grid (sj8329).

Subsequent experience revealed that keying in on discontinuities in water bodies along quad boundaries failed to catch many of the inadequacies of the grid. The large, obvious discrepancies seemed to cause little difficulty by themselves; however, they tended to exacerbate problems due to defects in the DEMs. For future modeling, the inspection, editing, and correction of DEM data should focus more on ensuring appropriate representation of man-made features such as dams and levees. Grids for reservoirs and areas with flood control works should be tested with drainage analysis prior to running GeoHMS. The 30-meter data lacked the resolution to adequately define dikes, saddle dams, small levees, etc. However, most of these features occurred in the valley floors and the study area for modeling predominately occurred in the headwater tributary streams. Perhaps the 10-meter DEMs or NED data minimize such issues, but modelers should exercise due caution until data sets are verified.

Specific examples of inadequately or inappropriately represented features are illustrated in Figures 2-3 through 2-5.

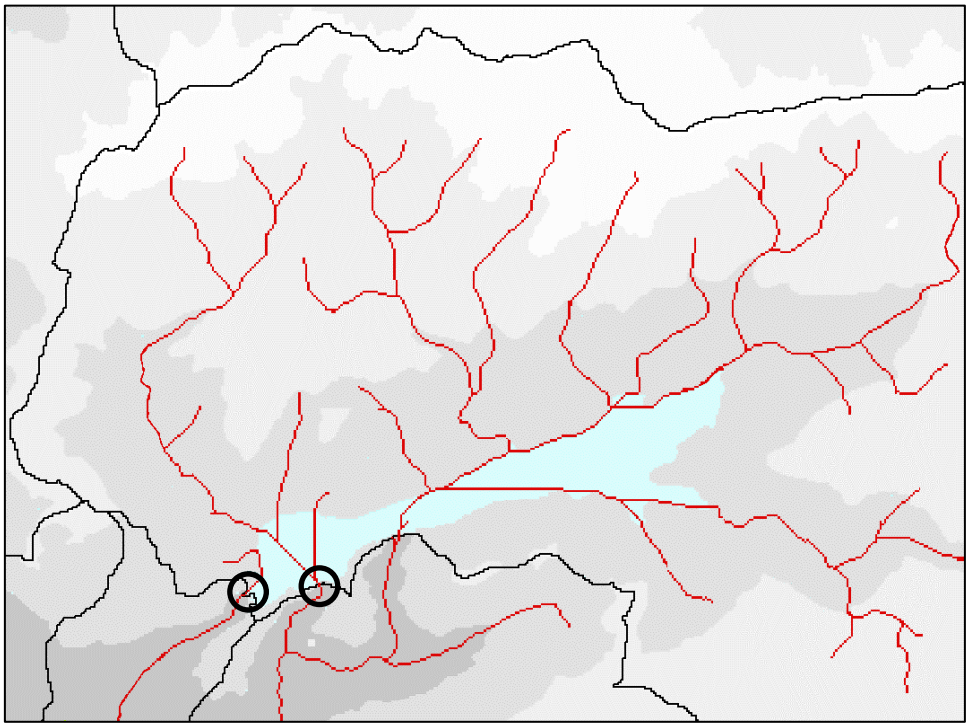


Figure 2-3. Errant Outlets on Huntington Lake

The circles in Figure 2-3 mark the saddle dams on Huntington Lake that required editing so that water flowed out of the correct channel. This situation was common in the 30-meter data. The errant outlets tended to join the proper channel a short distance downstream, adding extra area to the lake's local drainage. Engineering judgement considered the significance of this additional area compared to the lake's actual subbasin size, as well the reservoir's modeling priority, in determining whether to correct the DEM data. These problems were discovered in a manual, trial-by-error fashion, prior to using GeoHMS.

In Figure 2-4, the Westside Road Causeway across Goose Lake appears as a dam. How much of a problem this actually posed to the drainage analysis is unknown, since the Goose Lake region was dropped from the study. This area rarely flows into the Pit River, and therefore, it was considered a non-contributing area. This example serves only to demonstrate potential problems with DEM construction.

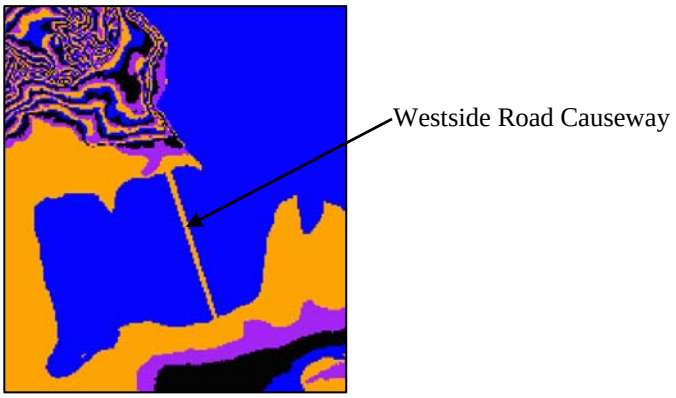


Figure 2-4. Causeway over Goose Lake

Some of the reasons that HEC thought it would be difficult to develop GeoHMS models in the central valley floor based on the 30-meter DEM data are illustrated in Figure 2-5 (eventually, HEC did develop GeoHMS models for the valley floors using the 30-meter DEMs). Although initially difficult to look at, close inspection of the figure reveals several potential problems for a drainage analysis. The figure covers a couple of dozen quads centered on the Sutter Buttes. The area shares many characteristics with the rest of the Central Valley grid, including a mixture of English and metric elevation units, Level 1 and Level 2 DEMs, extensive areas of very low relief, a 40-year range in the age of the source maps, and a heavily engineered system of canals, levees, and other flood control and irrigation features.

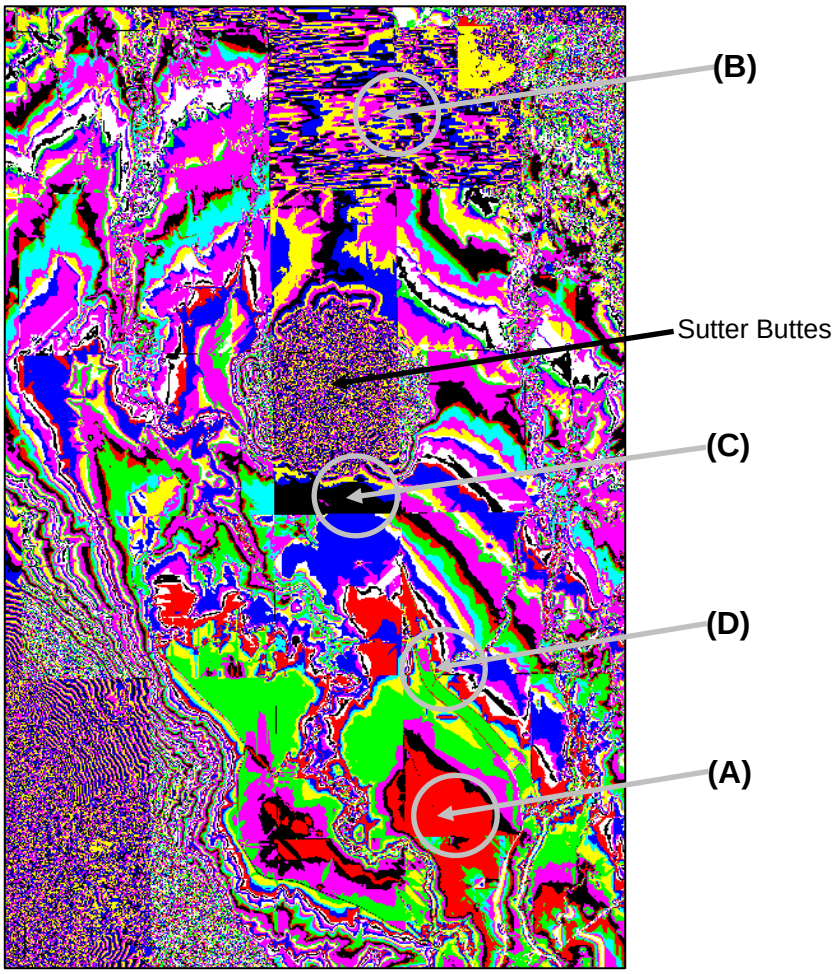


Figure 2-5. Unique-Value Plot near the Sutter Buttes

The headwater DEMs tended to blend well in most areas, making the boundaries of individual quads almost transparent. In the flat Central Valley, however, the lack of relief magnifies the effects of minor discontinuities and causes the borders of the quads to stand out. Each unique elevation is shown as one of sixteen different colors in Figure 2.5. Several quads contain large areas of a single elevation, as shown by (A). Even the small ridges introduced by disparate vertical units could contribute into many square miles of misdirected drainage. Additionally, the elevations are generally only accurate to approximately half of a contour interval of the published quad. The flat terrain substantially amplifies errors in hydrologic parameters that are based on slope.

The DEMs in the valley floor suffer from more problems than just mixing elevations in feet and meters. The lateral 'striping' (typical of Level 1 data in flat areas) appears near the top of Figure 2-5, as shown by (B). Drainage patterns based on these DEMs would likely contain substantial errors. In the DEMs immediately below the Sutter Buttes, the contours break abruptly along quad boundaries, or fail to match up at all, as shown by (C). The Sutter Bypass, seen clearly in two quads along the lower right edge, disappears completely in the quad closest to the Buttes, as shown by (D). A bust in the vertical datums possibly explains some of the edge discontinuities around this quad, which claimed to use LMSL.

2.8 Distribution for Study

After correcting the master study grids (sac8329 and sj8329), HEC staff created fourteen (14) study areas by cutting smaller coverages from the master DEMs using USGS hydrologic unit maps as templates. Each of the fourteen study areas were then assigned to one of 11 modeling teams of engineers from HEC and the Sacramento District. Eight (8) study areas were developed in the Sacramento watershed and six (6) in the San Joaquin River / Tulare Lake Bed watersheds. A listing of the fourteen hydrologic study areas is shown in Table 2.2. The GeoHMS "MainViews" for these study areas are illustrated in Figures 2-6 through 2-19. Along with these integer grids (in decimeters), each study team received a floating point version, in meters. Each of the fourteen smaller DEMs included one to four actual river basins (which were later subdivided during the GeoHMS process). It is important to stress that in order for GeoHMS to provide reasonable estimates of the physical characteristics, the DEMs must be assembled carefully and conscientiously.

Table 2.2 Fourteen Hydrologic Study Areas

Watershed	Abbreviated Study Area Name	Basin Name
Sacramento	US	Upper Sacramento
"	CL_CO_RB_EL_TH	Clear, Cottonwood, Red Bank, Elder, Thomes
"	CA_ST_PU	Cache, Stony, Putah
"	CW_BA	Cow, Battle
"	MidSac_Valley	Middle Sacramento (Valley)
"	BC_BU_CC	Big Chico, Butte, Cherokee Canal
"	BE_YU_FE	Bear, Yuba, Feather
"	AM	American
San Joaquin	CN_DG_MO	Cosumnes, Dry Cr at Galt, Mokelumne
"	CV_SL	Calaveras, Stanislaus
"	TO_ME	Tuolumne, Merced
"	CH_FR_SJ	Chowchilla, Fresno, Upper San Joaquin
Tulare Lake Bed	KI_KA	Kings, Kaweah
"	TU_KE	Tule, Kern

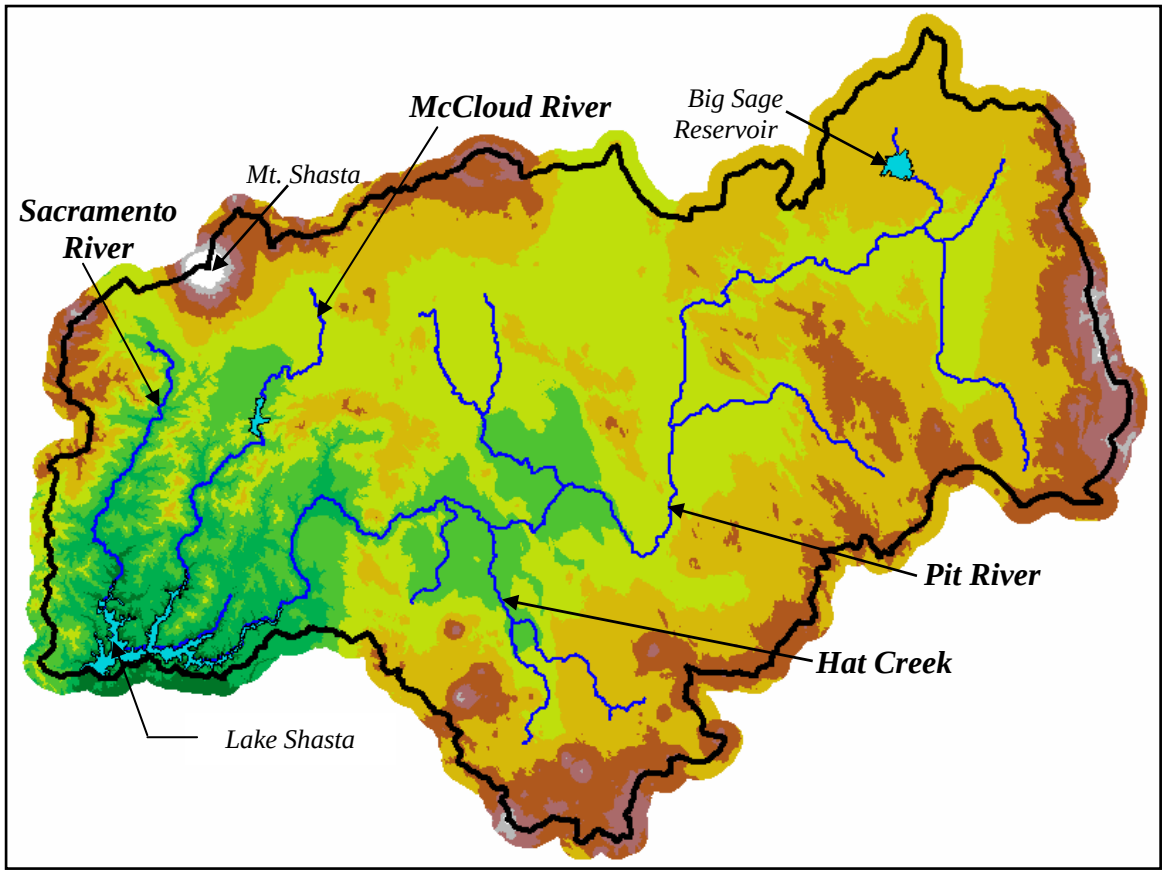


Figure 2-6. HEC-GeoHMS MainView for Upper Sacramento River Study Area

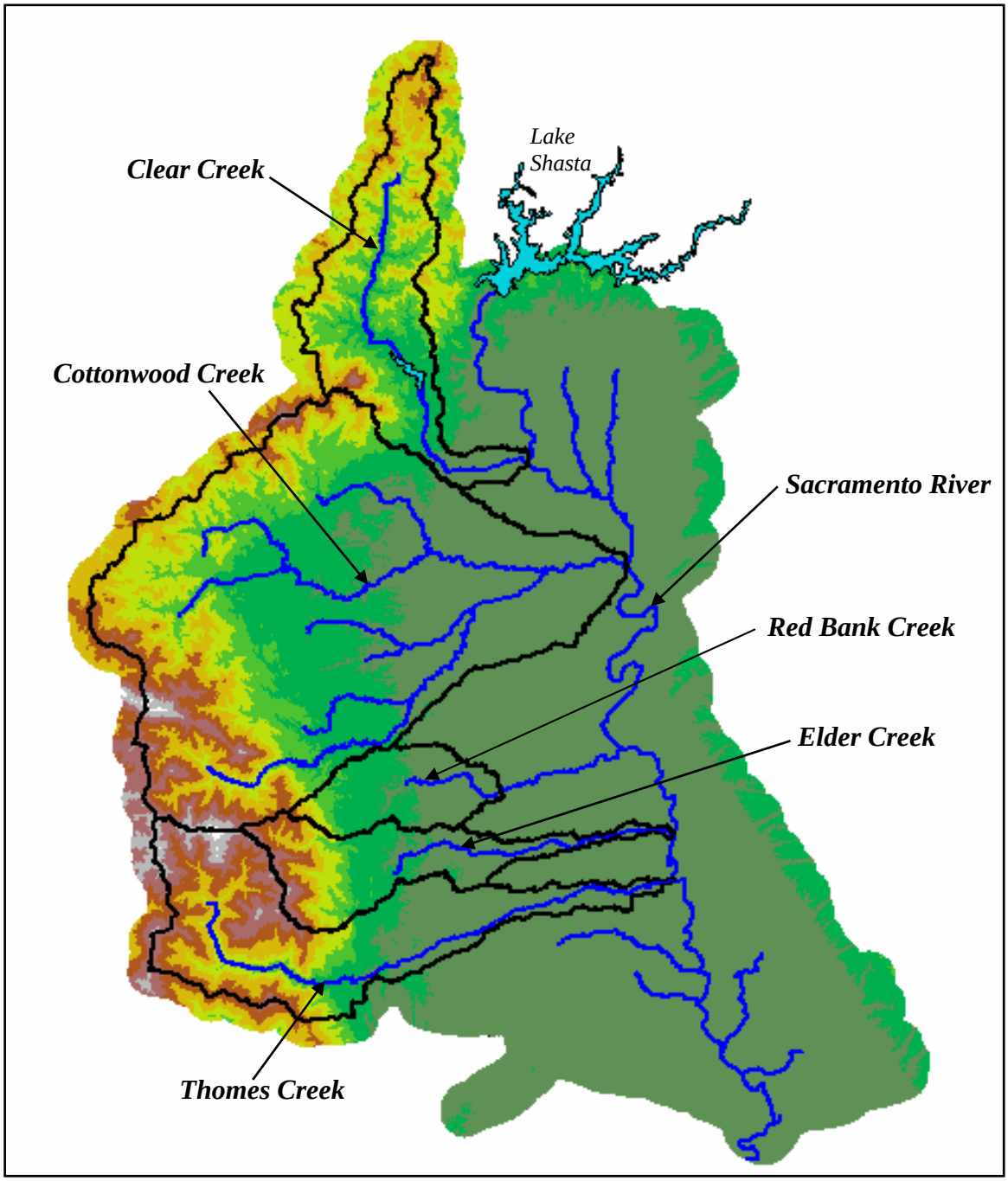


Figure 2-7. HEC-GeoHMS MainView for Clear, Cottonwood, Red Bank, Elder and Thomes Creeks Study Area

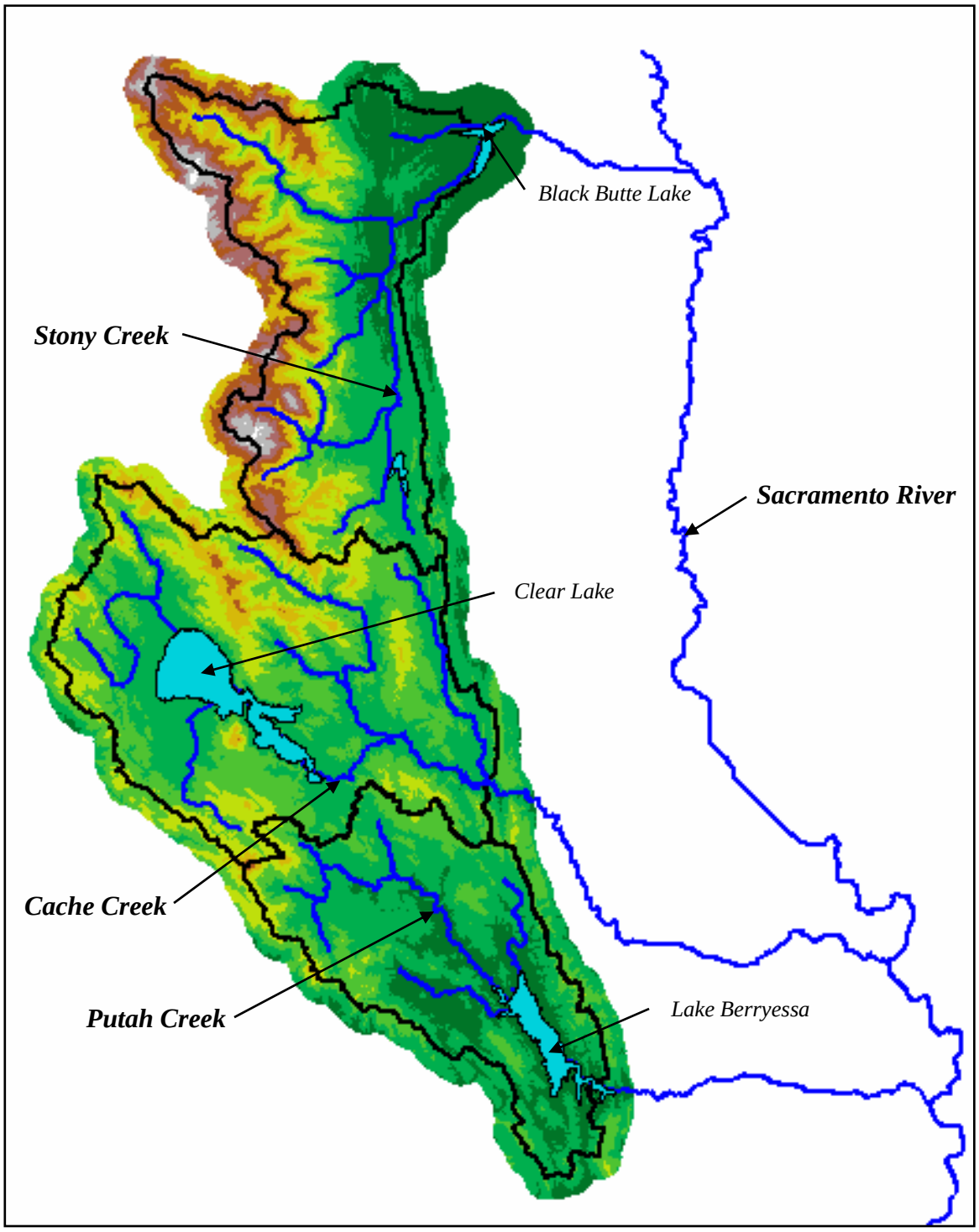


Figure 2-8. HEC-GeoHMS MainView for Cache, Stony and Putah Creeks Study Area

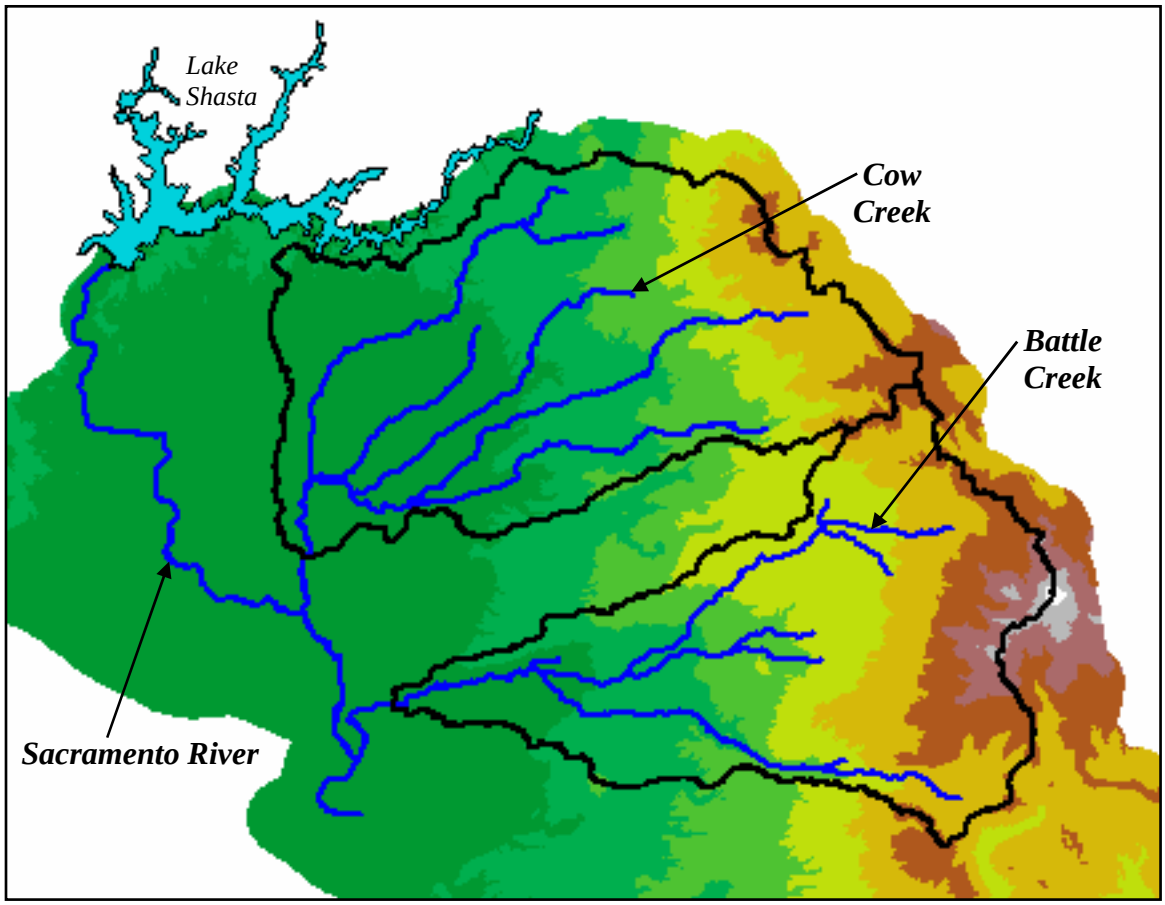


Figure 2-9. HEC-GeoHMS MainView for Cow and Battle Creeks Study Area

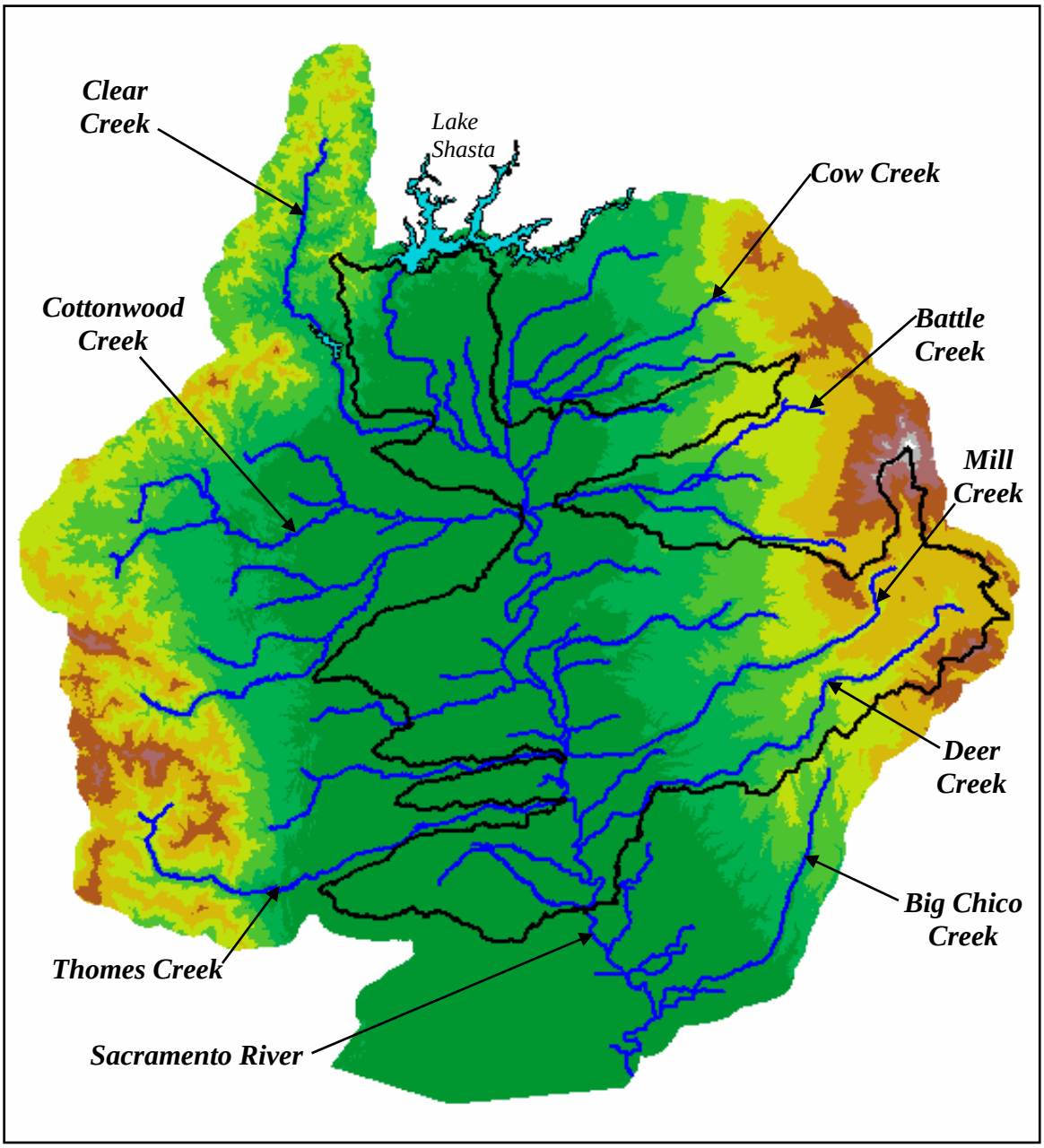


Figure 2-10. HEC-GeoHMS MainView for Middle Sacramento River (Valley) Study Area

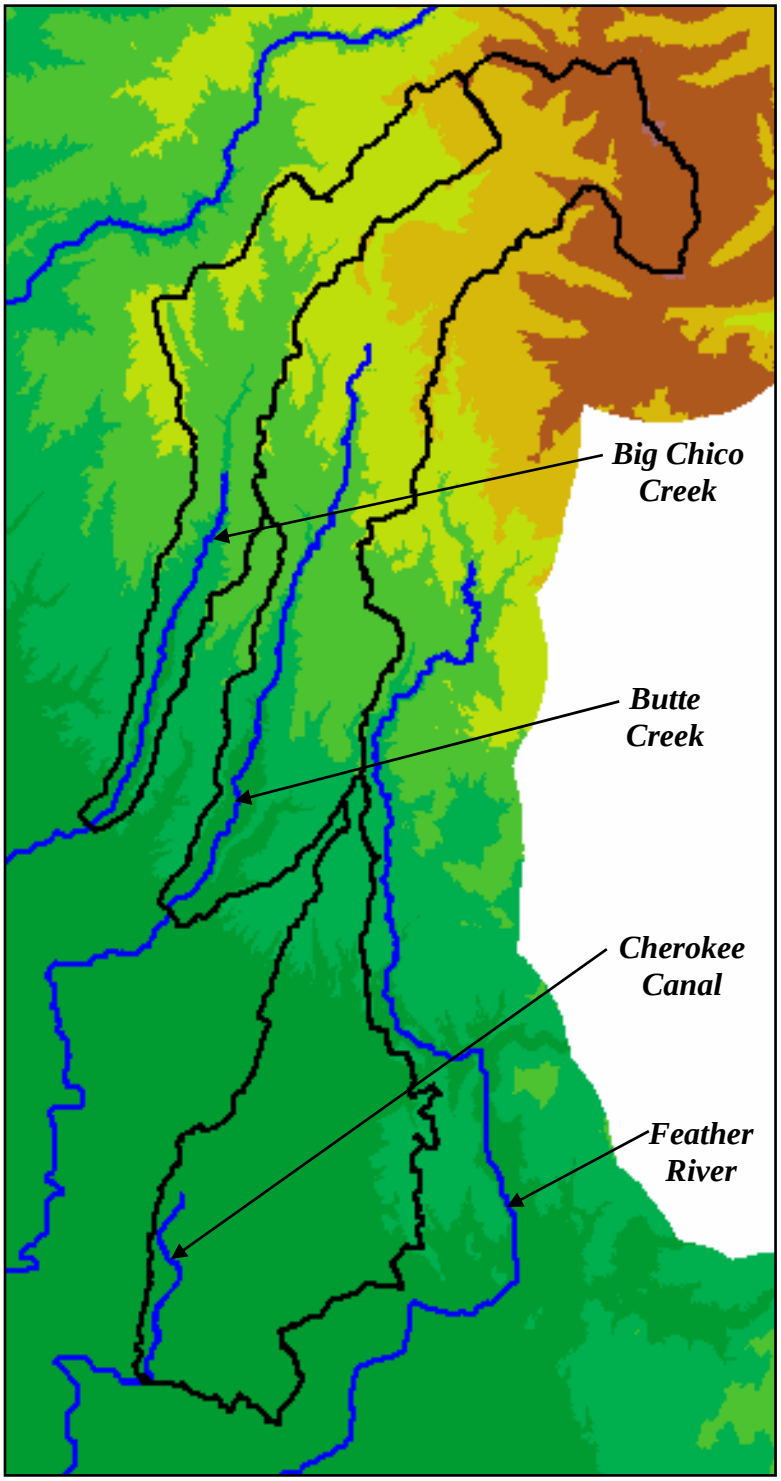


Figure 2-11. HEC-GeoHMS MainView for Big Chico Creek, Butte Creek and Cherokee Canal Study Area

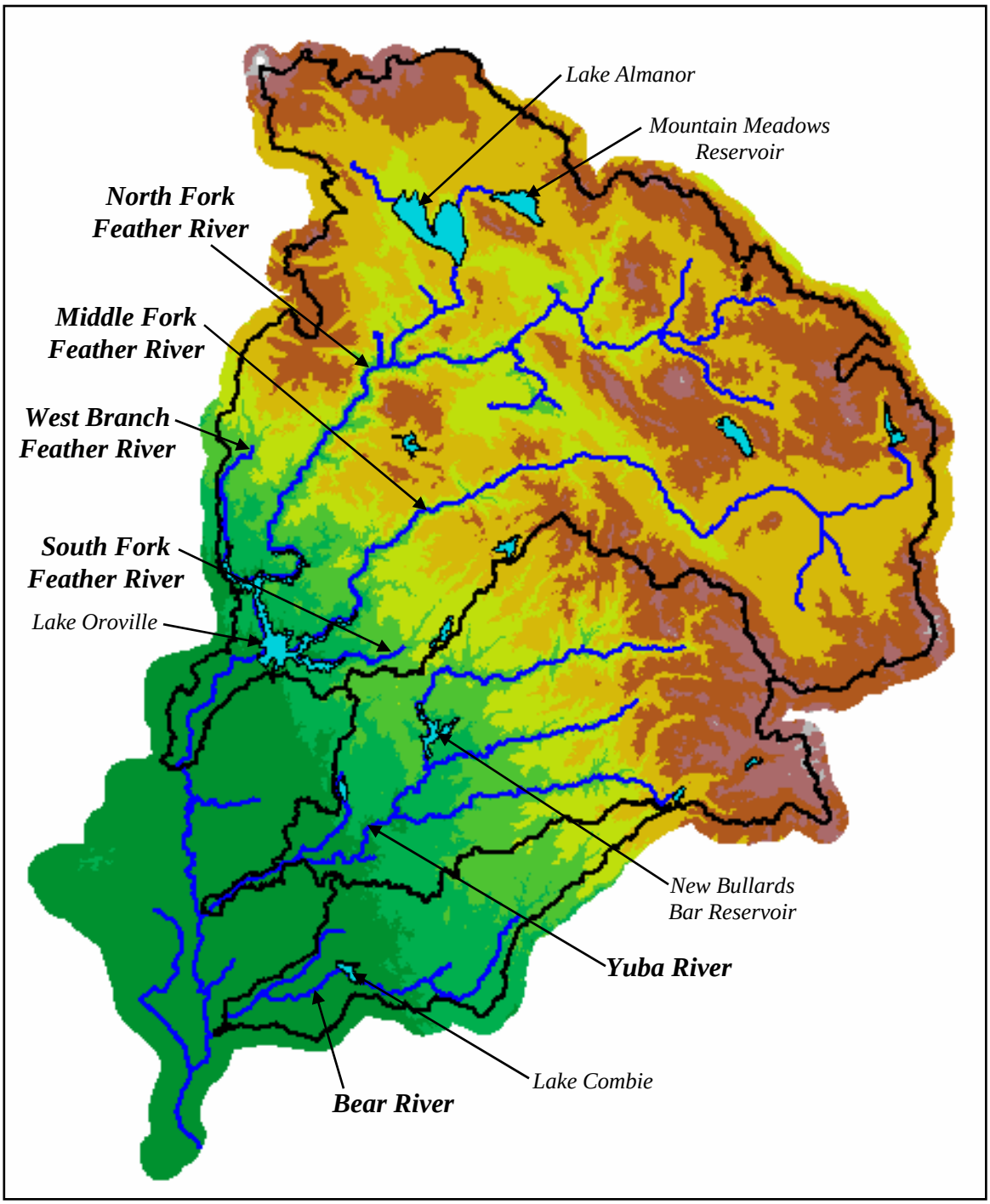


Figure 2-12. HEC-GeoHMS MainView for Bear, Yuba and Feather Rivers Study Area

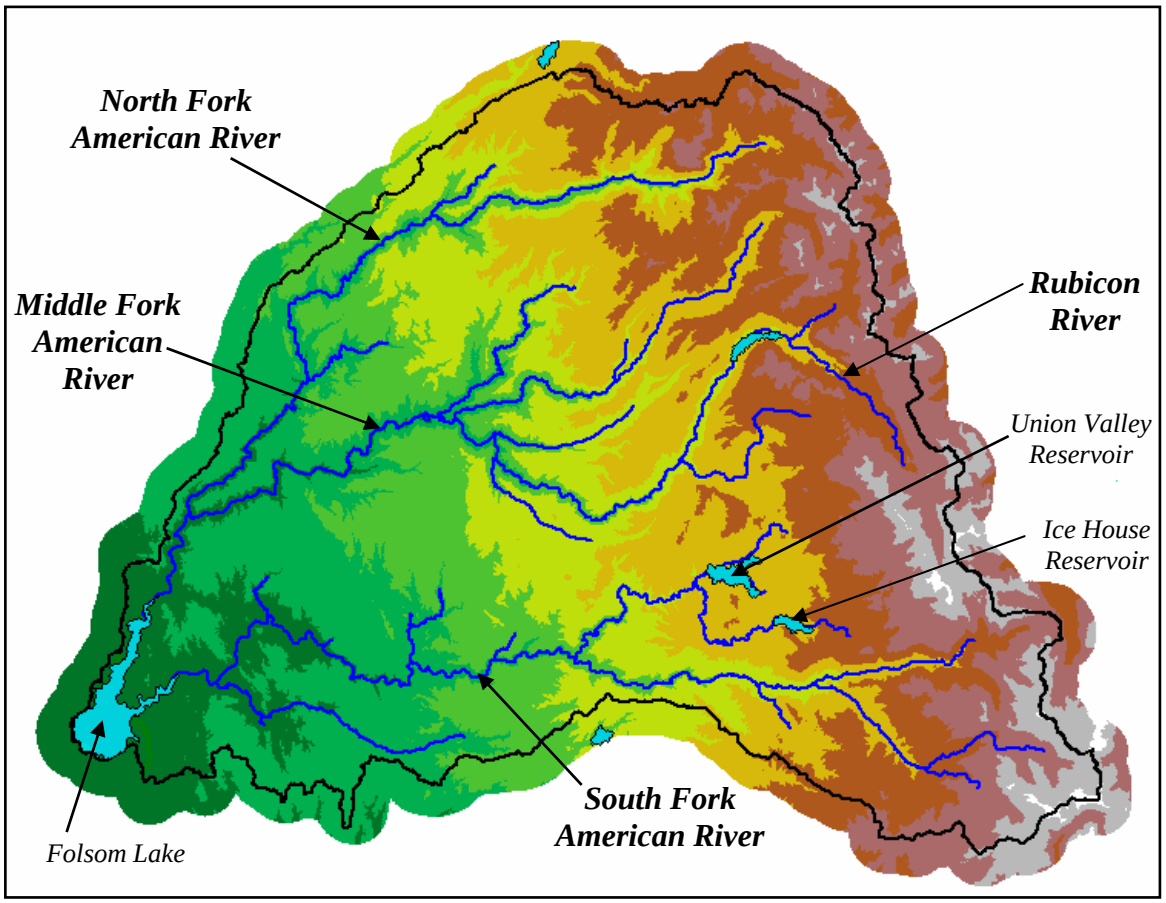


Figure 2-13. HEC-GeoHMS MainView for American River Study Area

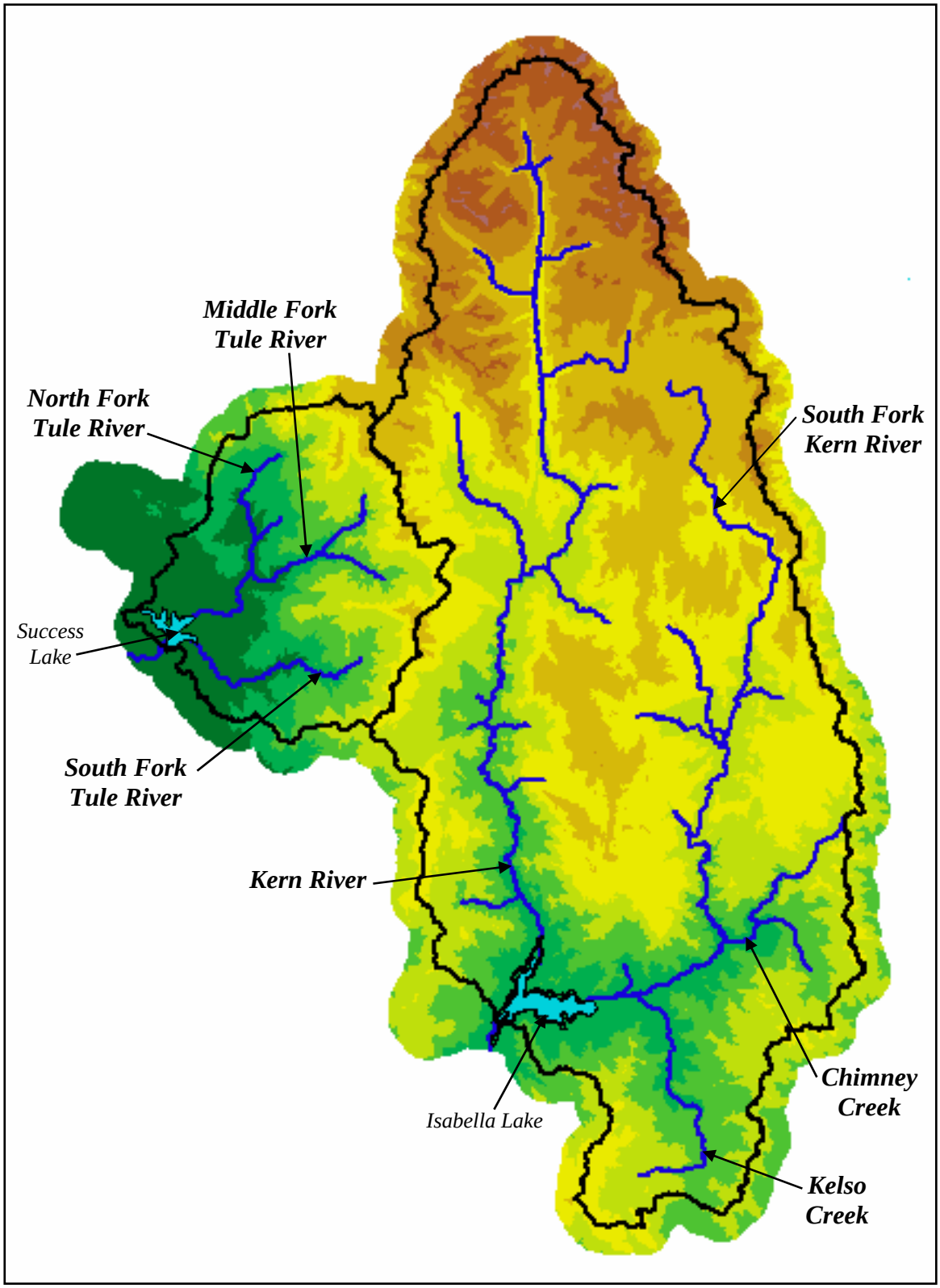


Figure 2-14. HEC-GeoHMS MainView for Tule and Kern Rivers Study Area

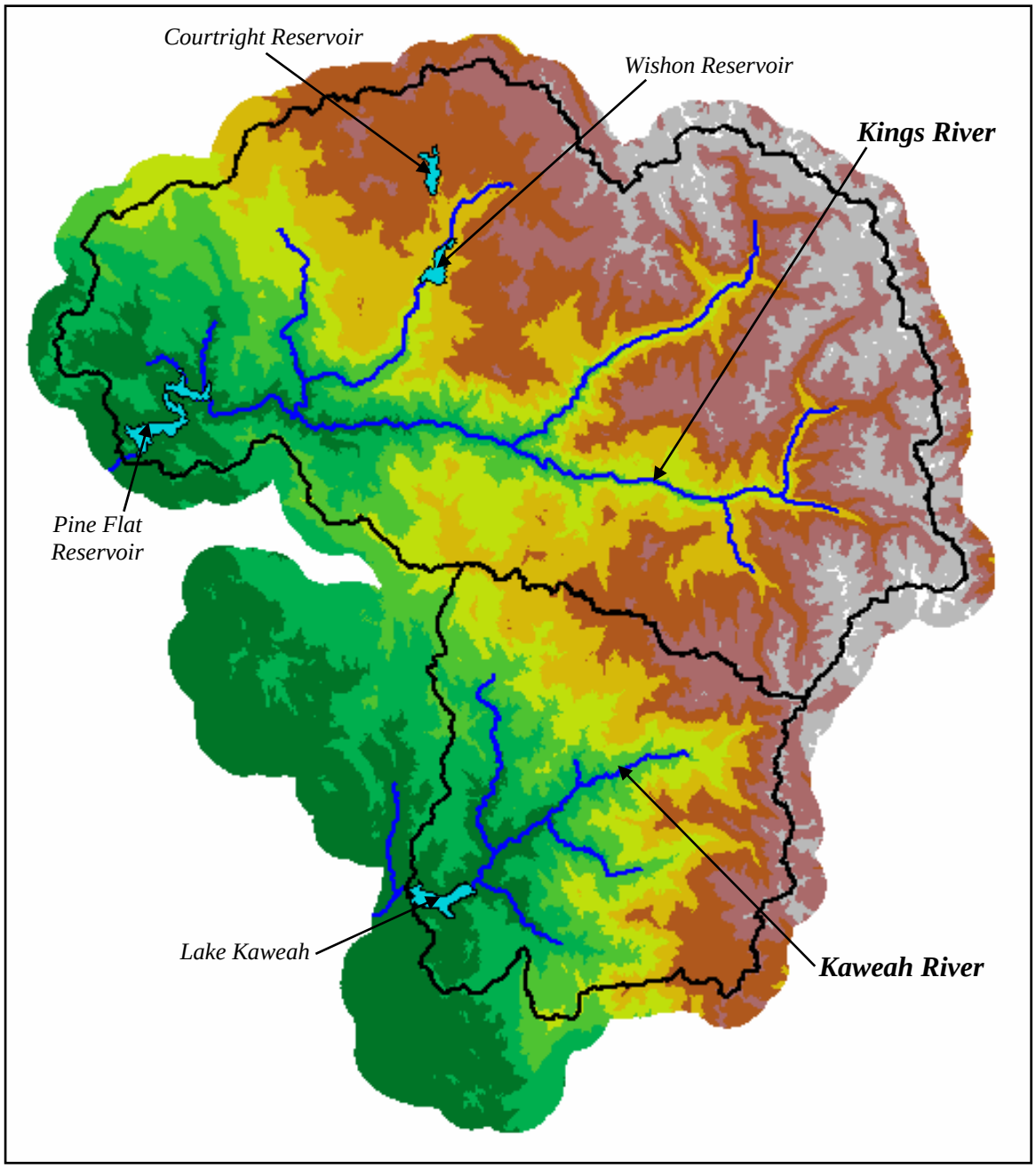


Figure 2-15. HEC-GeoHMS MainView for Kings and Kaweah Rivers Study Area

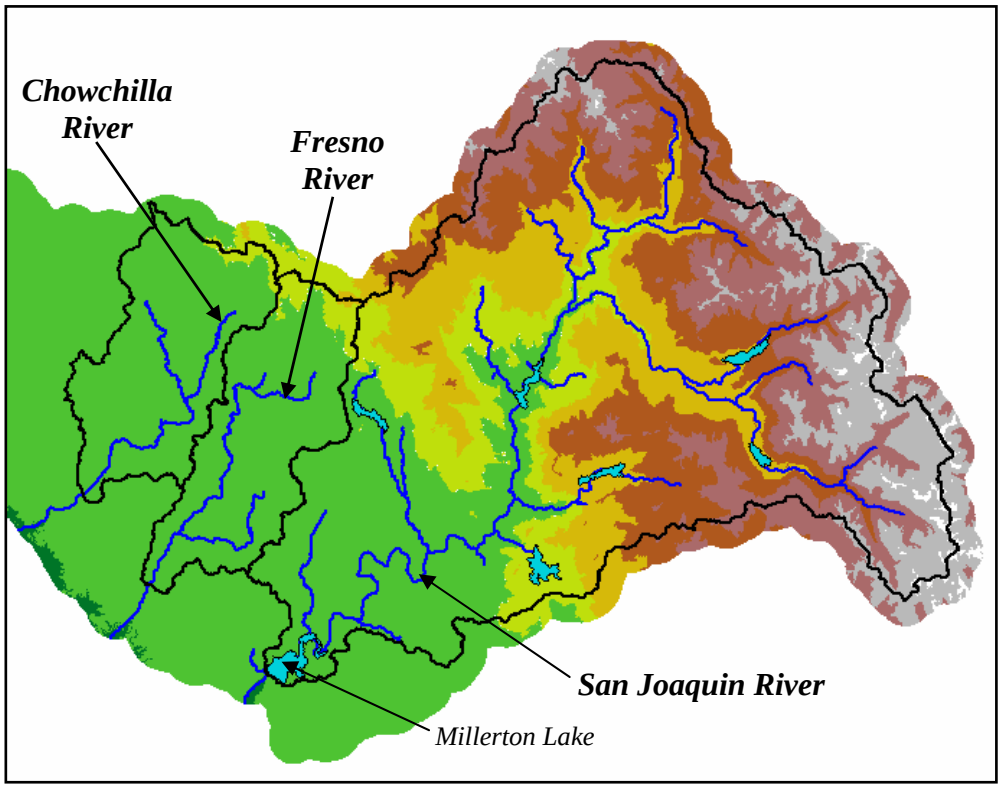


Figure 2-16. HEC-GeoHMS MainView for Chowchilla, Fresno and Upper San Joaquin Rivers Study Area

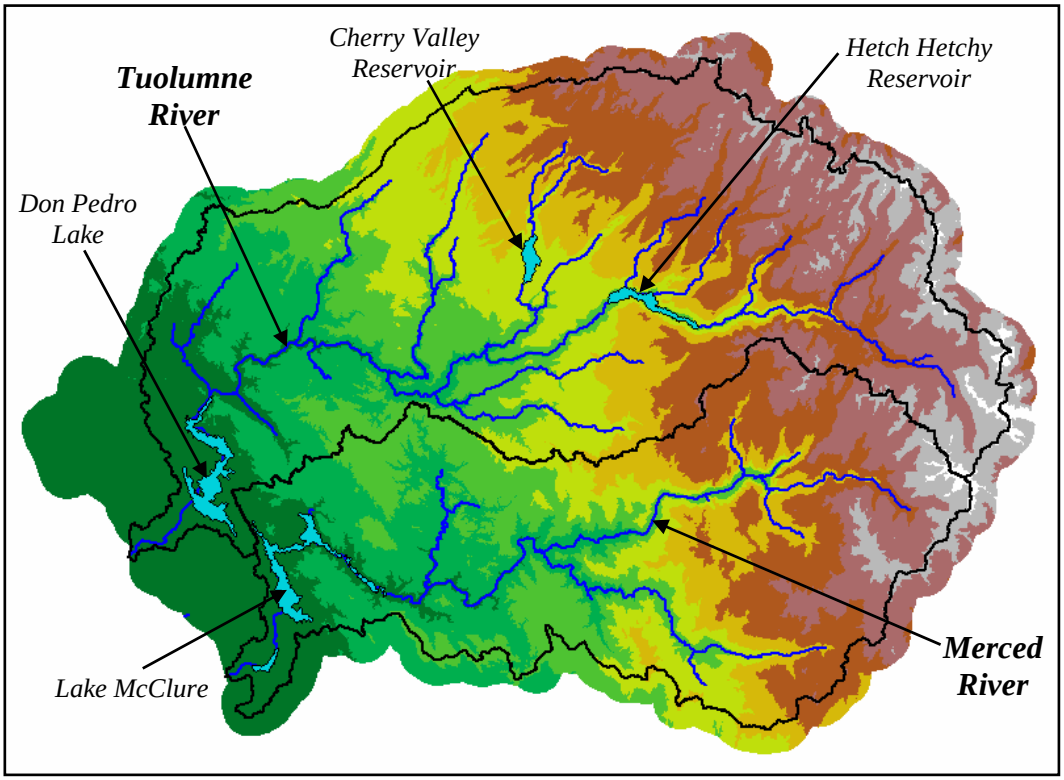


Figure 2-17. HEC-GeoHMS MainView for Tuolumne and Merced Rivers Study Area

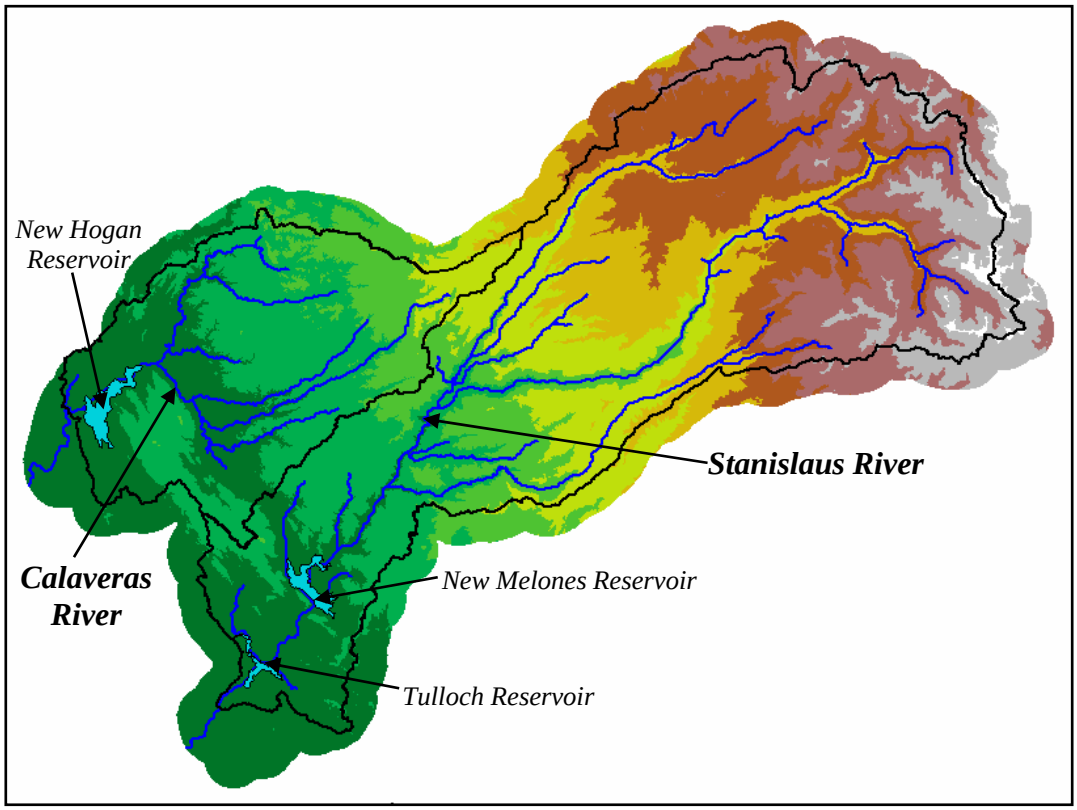


Figure 2-18. HEC-GeoHMS MainView for Calaveras and Stanislaus Rivers Study Area

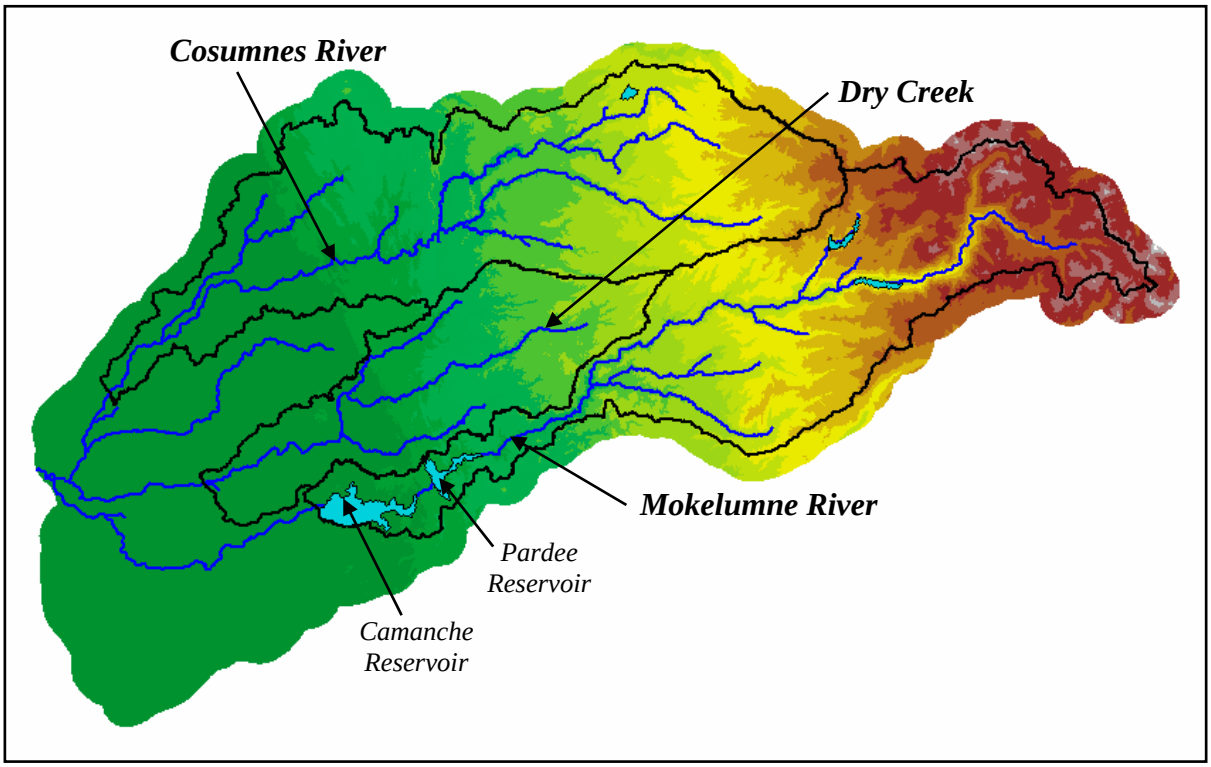


Figure 2-19. HEC-GeoHMS MainView for Cosumnes River, Dry Creek at Galt and Mokelumne River Study Area

Chapter 3

Data Acquisition

A significant element of any water resource study is the acquisition and verification of data necessary to perform the technical analyses. Data for the two events to be modeled (and data for the period-of-record) were collected and assembled. The two events used for the development of the hydrologic models were the March 1995 event and the December 1996 - January 1997 event. Other events such as the 1983 and 1986 events were desired, but required data were not readily available.

Over 50 agencies were contacted for data, and over 4500 time series were processed for this study. For delineation, optimization and calibration purposes, approximately 200 flow gages and 83 reservoirs were considered. Hourly and daily flow, stage, and reservoir data were collected, along with other data to assist modelers in delineation, optimization and calibration of their models.

3.1 Data Collection

Because of the enormity of the data collection effort and the limited time to complete it (4 months), it was decided to contract this portion of the modeling effort. Extensive data collection was achieved through HEC's contract with Northwest Hydraulic Consultants, Inc. (NHC). The contract with NHC included a set of data collection requirements which specified the type of data to be collected and the format for delivery. Collection requirements are included in *Appendix A*. Specific information was collected for each gage and stored in the HEC Data Storage System (HEC-DSS) as metadata (D-part of the pathname = METADATA). This information consisted of station name and identifier, location, period of record, data interval, and source and format of the collected data. Also included in the metadata were data availability percentages (described in "Section 3.5, Data Availability Ratings") and peak flow and precipitation information for both events. For flow data, the peak daily (or hourly, if available) flow values were included. For precipitation data, event totals were computed and included based on daily data; peak 1-hour, 3-hour, 6-hour and 24-hour values (in addition to total event values) were computed and included based on hourly precipitation data.

NHC sent data request letters to approximately 50 agencies, and subsequent telephone calls were made to further clarify the data requests and to provide the preferred format for the data. The primary sources for the data collected were the United States Geological Survey (USGS), the Natural Resources Conservation Service (NRCS), the National Weather Service (NWS), the US Bureau of Reclamation (USBR), the US Army Corps of Engineers (Corps), the California Department of Water Resources (DWR) and the California Irrigation Management Information Service (CIMIS). Additionally, data were provided by several local and/or private companies that included Sacramento County, East Bay Municipal District, Fresno Metropolitan Flood Control District, the City of Roseville, PG&E, Tri-Dams, and the Lawrence Livermore National Laboratory. A listing of agency contacts is shown in *Appendix B*. A total of

approximately 4500 separate time series were processed; approximately 2700 of which have time series data for at least one of the two events of interest.

It was originally thought that the California Data Exchange Center (CDEC) would be the sole source for hourly and daily flow data. However, HEC was not able to use or chose not to download all of the flow data from the CDEC database for several reasons. First, DWR reports flow data to CDEC on a real-time basis. Subsequently, DWR may review and revise these flow data but do not necessarily post revisions to CDEC. Therefore, DWR flow data found in the CDEC database is not always up-to-date and, thus, DWR was contacted directly for their revised data. Given that the DWR data comprised a large portion of the flow data, pursuing the revised DWR data was a time consuming and challenging task. Second, while the various utilities often post daily flows to CDEC, they do not post their hourly flows. Some utilities consider their flow information proprietary, which makes it difficult to acquire. A blanket request for data from the utilities was not effective. To acquire hourly records for specific flow gages owned by the utilities, the HEC-HMS models were developed, and then the gages for calibration were identified. Once specific gages were identified, a detailed list was sent to the Sacramento District, who then forwarded these requests to the utilities. After they received a specific list, they provided hourly flow data at these defined gages. Even then, these data were not received in time to use for the optimization process and thus the formulation of the regression equations. However, these gages were used, as appropriate, during the calibration process.

3.2 Data Storage and Organization

Because the hydrologic and reservoir modeling process can produce large volumes of data, a data management plan was developed to utilize the HEC-DSS. Data stored in HEC-DSS files can be tabulated, graphically displayed and processed using utility programs to develop summary statistics or to perform data manipulations. Using appropriate DSS record pathnames[1], the models can read data from and write results to the HEC-DSS files. The HEC-DSS package of programs are documented in the *HEC-DSS User's Guide and Utility Manuals* (HEC, 1995a).

In addition, an ArcView® GIS capability was developed to organize the gages into geographic areas within each of the three watersheds (Sacramento River, San Joaquin River and Tulare Lake Bed). By using ArcView®, data could be viewed spatially. A total of 28 geographic areas were defined for the assembly and distribution of the data: 14 in the Sacramento River Basin; 9 in the San Joaquin River Basin; and 5 in the Tulare Lake Bed Basin. These areas may include one or more hydrologic unit codes (HUCs), as defined by the USGS,. and may include one or more basin models as well. Period-of-Record (P-O-R) data for all data types collected (see "Section 3.3, Data Types") were organized by gage location into the 28 DSS files, one for each area. The geographic areas that were contained in the individual DSS files are shown in Table 3.1. The DSS Condensed Catalog listings for the 28 DSS files for period-of-record data are provided in *Appendix C*.

[1] *Pathname is a label used to identify a record in a DSS file. The pathname is a unique six-part label used to define every record in the file. See Chapter 3, DSS Overview, in the HEC-DSS User's Guide and Utility Manuals for general information on pathnames (HEC, 1995a).*

Table 3.1 Period-of-Record Data Stored in HEC-DSS Files by Geographic Area

HEC-DSS File	Watershed	Geographic Area	Appendix C Page No.
SAC01	Sacramento	American River	C-1
SAC02	Sacramento	Bear River	C-3
SAC03	Sacramento	Stony Creek	C-4
SAC04	Sacramento	Cache Creek / Putah Creek	C-6
SAC05	Sacramento	Feather R @ Lk Or	C-8
SAC06	Sacramento	Feather R @ Verona	C-13
SAC07	Sacramento	N Fork American R	C-16
SAC08	Sacramento	Sac R @ Chico	C-19
SAC09	Sacramento	Sac R @ Red Bluff	C-21
SAC10	Sacramento	Sac R @ Verona	C-24
SAC11	Sacramento	Sac R @ Mouth	C-26
SAC12	Sacramento	Shasta	C-29
SAC13	Sacramento	S Fork American R	C-35
SAC14	Sacramento	Yuba River	C-38
SJ01	San Joaquin	Calaveras	C-43
SJ02	San Joaquin	Cosumnes	C-44
SJ03	San Joaquin	Don Pedro Res	C-48
SJ04	San Joaquin	Lake McClure	C-51
SJ05	San Joaquin	Mariposa Res	C-52
SJ06	San Joaquin	Melones Res	C-54
SJ07	San Joaquin	SJ R @ Friant Dam	C-57
SJ08	San Joaquin	SJ R @ Hills Ferry	C-60
SJ09	San Joaquin	SJ R @ Mouth	C-63
TUL01	Tulare	Fresno River	C-67
TUL02	Tulare	Upper Kern	C-72
TUL03	Tulare	Kings River	C-75
TUL04	Tulare	Lake Kaweah	C-78
TUL05	Tulare	Lake Success	C-80

3.3 Data Types

The types of data needed for the modeling activities included: precipitation, air temperature; snow depth and snow water equivalent; stream flow; stream stage; and reservoir inflow, outflow, elevation and storage. Since a one-hour time interval was used for the models developed by HEC, hourly data were of primary interest. However, daily or other available time interval data were also acquired. Daily gages were very useful during the calibration process as long as instantaneous peaks were also provided. For the USGS gages, instantaneous peaks could be found at *ca.water.usgs.gov/data/97*. While HEC was still primarily interested in hourly event data, the Sacramento District was interested in both Period-of-Record and event data.

3.4 Event Data

Though data acquisition included collection of period-of-record data, HEC's modeling effort focused on two major flood events. Data collection and validation for the first event covered the period of 1-31 March 1995, while the second event covered the period of 1 December 1996 through 31 January 1997. However, the actual event modeling windows were later shortened to 6-31 March 1995 and 14 December 1996 through 31 January 1997, to minimize the compute time for the Distributed Snow Process Model (DSPM), which was used to generate snowmelt (see "Section 5.2, Snowmelt" for a full description of the DSPM process). March 6, 1995 and December 14, 1996 were the dates closest to the actual runoff events where satellite imagery was available.

3.5 Data Availability Ratings

Event data were rated by calculating the percentage of data available over the entire event period (i.e., for the one-month period for Event 1 and the two-month period for Event 2). Gages were rated as follows: "Excellent" if more than 95% of the data were available; "Good" if between 80% and 95% of the data were available; "Fair" if between 50% and 80% of the data were available; and, "Poor" if less than 50% of the data were available. Gages that did not exist, or that did not record data during an event, were rated as "None" for that event. It should be stressed that these ratings are strictly based on the *availability of data* for the events; they do *not* indicate the *quality of the data*. For example, a gage rated as "good" could have collected 80% of the data for that particular event; however, the 20% that was missing could have been during the peak of the event. Conversely, a gage rated as "fair" may only have recorded 70% of the event data, but included the peak of the event, which made it highly desirable. NHC developed a plotting routine, "NHCPlot" (NHC, 1999), which was used for viewing the data and assisted in determining the quality of the event data.

Results of the data availability rating for all 4500 time series data (input into DSS from their original "raw" format) are summarized in Table 3.2. Because hourly flow data were of particular interest for the model calibration efforts, Table 3.3 was developed to show data availability ratings of approximately 400 hourly flow gages for the two event periods.

Table 3.2 Time Series Data Availability Ratings

		Event 1 Data Availability Rating					
		Excellent	Good	Fair	Poor	None	Total
Event 2 Data Availability Rating	Excellent	1656	53	39	50	152	1950
	Good	67	17	10	12	31	137
	Fair	89	12	26	10	30	167
	Poor	77	9	19	55	58	218
	None	228	7	8	12	1772	2027
	Total	2117	98	102	139	2043	4499

Table 3.3 Hourly Flow Data Availability Ratings

		Event 1 Data Availability Rating					
		Excellent	Good	Fair	Poor	None	Total
Event 2 Data Availability Rating	Excellent	141	9	4	4	12	170
	Good	11	1	2	0	2	16
	Fair	10	0	2	0	3	15
	Poor	8	0	6	45	7	66
	None	25	2	3	4	96	130
	Total	195	12	17	53	120	397

An ArcView® GIS project file with themes for each distinct data type was developed. This capability enables the geographical display of precipitation gages, stream flow gages, etc. Using the ArcView® themes, Table 3.4 was developed showing the data availability ratings for each data type and time interval for the two events. The locations of the Hourly Flow Gages for the Sacramento, San Joaquin and Tulare Lake Bed watersheds where the event "Data Availability Ratings" were determined to be either "Excellent" or "Good" are shown in Figures 3-1 and 3-2, respectively.

3.6 Data Review and Processing (Fill-in)

For those gages where data availability was rated as "Excellent" or "Good" for either event period, a review of the data and additional processing, if appropriate, was performed. The shaded areas in Tables 3.2 and 3.3 indicate the number of gages where the data availability rating was determined to be either "Excellent" or "Good" for either event. The total number of gages reviewed was 2215 (2117 Excellent + 98 Good) for Event 1 and 2087 (1950 Excellent + 137 Good) for Event 2, as shown in Table 3.2.

Review of the data consisted of manually reviewing (using the "NHCPlot" computer program) the "Excellent and Good" time series to identify anomalous values, such as spikes in the data. If appropriate, corrections were made and noted in the metadata information. Missing values were filled in only for hourly flow data series through the use of linear interpolation

between available data. In retrospect, HEC would not advise filling in missing data for any of the gages. The linearly interpolated gages sometimes provided a false sense of accuracy when used during the modeling phase. It would have been more appropriate to have had missing data than to have used a filled-in hydrograph that was misleading.

The "cleaned-up" data used for the models was stored into DSS along with the transitional data. The original (raw) data were received by NHC in various formats from various agencies. NHC converted the data into DSS format (transitional). The transitional data were "cleaned up" by NHC and stored into DSS as final data. All of these data (raw, transitional, and final), along with other information specified in the contract with NHC, was provided to the District on 7 CD-ROMS.

Table 3.4 EVENT Data Types and Data Availability Ratings

Data Type	Event (1=1995 2=1997)	Time Interval	Total Event Gages	Data Availability Rating					
				Excellent	Good	Excellent+Good % of Total	Fair	Poor	Fair+Poor % of Total
FLOW	1	All	733	627	15	88%	15	76	12%
		1DAY	568	488	5	87%	6	69	13%
		1HOUR	165	139	10	90%	9	7	10%
	2	All	697	595	23	89%	26	53	11%
		1DAY	540	474	9	89%	11	46	11%
		1HOUR	157	121	14	86%	15	7	14%
STAGE	1	All	34	31	0	91%	0	3	9%
		1DAY	2	2	0	100%	0	0	0%
		1HOUR	32	29	0	91%	0	3	9%
	2	All	40	28	7	88%	2	3	12%
		1DAY	0	0	0	0%	0	0	0%
		1HOUR	40	28	7	88%	2	3	12%
PRECIP	1	All	327	215	28	74%	18	66	26%
		1DAY	158	106	12	75%	8	32	25%
		1HOUR	169	109	16	74%	10	34	26%
	2	All	346	224	36	75%	42	44	25%
		1DAY	171	127	21	87%	11	12	13%
		1HOUR	175	97	15	64%	31	32	36%
TEMP	1	All	87	48	3	59%	9	27	41%
		1DAY	25	5	0	20%	8	12	80%
		1HOUR	62	43	3	74%	1	15	26%
	2	All	100	67	4	71%	25	4	29%
		1DAY	25	21	0	84%	2	2	16%
		1HOUR	75	46	4	67%	23	2	33%

... Continued ...

Table 3.4 EVENT Data Types and Data Availability Ratings - *Continued*

Data Type	Event (1=1995 2=1997)	Time Interval	Total Event Gages	Data Availability Rating					
				Excellent	Good	Excellent+Good % of Total	Fair	Poor	Fair+Poor % of Total
TMAX	1	1DAY	59	36	2	64%	9	12	36%
	2	1DAY	58	53	1	93%	1	3	7%
TMIN	1	1DAY	58	35	2	64%	9	12	36%
	2	1DAY	57	52	1	93%	1	3	7%
SWE	1	All	170	110	20	76%	7	33	24%
		1DAY	106	71	13	79%	5	17	21%
		1HOUR	64	39	7	72%	2	16	28%
	2	All	171	81	33	67%	39	18	33%
		1DAY	106	46	26	68%	16	18	32%
		1HOUR	65	35	7	65%	23	0	35%
SNWCRSE	1	1MON	258	201	0	78%	0	57	22%
	2	1MON	233	180	0	77%	0	53	23%
VOLUME	1	1DAY	87	76	0	87%	0	11	13%
	2	1DAY	19	16	0	84%	0	3	16%
ELEV	1	All	20	20	0	100%	0	0	0%
		1DAY	14	14	0	100%	0	0	0%
		1HOUR	6	6	0	100%	0	0	0%
	2	All	20	20	0	100%	0	0	0%
		1DAY	14	14	0	100%	0	0	0%
		1HOUR	6	6	0	100%	0	0	0%

3.7 Data Visualization

Because of the sheer number of gages and requests to delineate basins at specific points, it was important to identify the geographic location of the gaging stations. Using the capabilities within ArcView® GIS, the hourly and daily flow gages and reservoir gages were organized by type and provided to the modeling teams in separate ArcView® coverages. The modelers could then import the ArcView® data layers into GeoHMS, and the basins and subbasins could be accurately delineated. To have the location of the gage data spatially referenced was critical to the speed and accuracy with which the basin delineations were later performed.

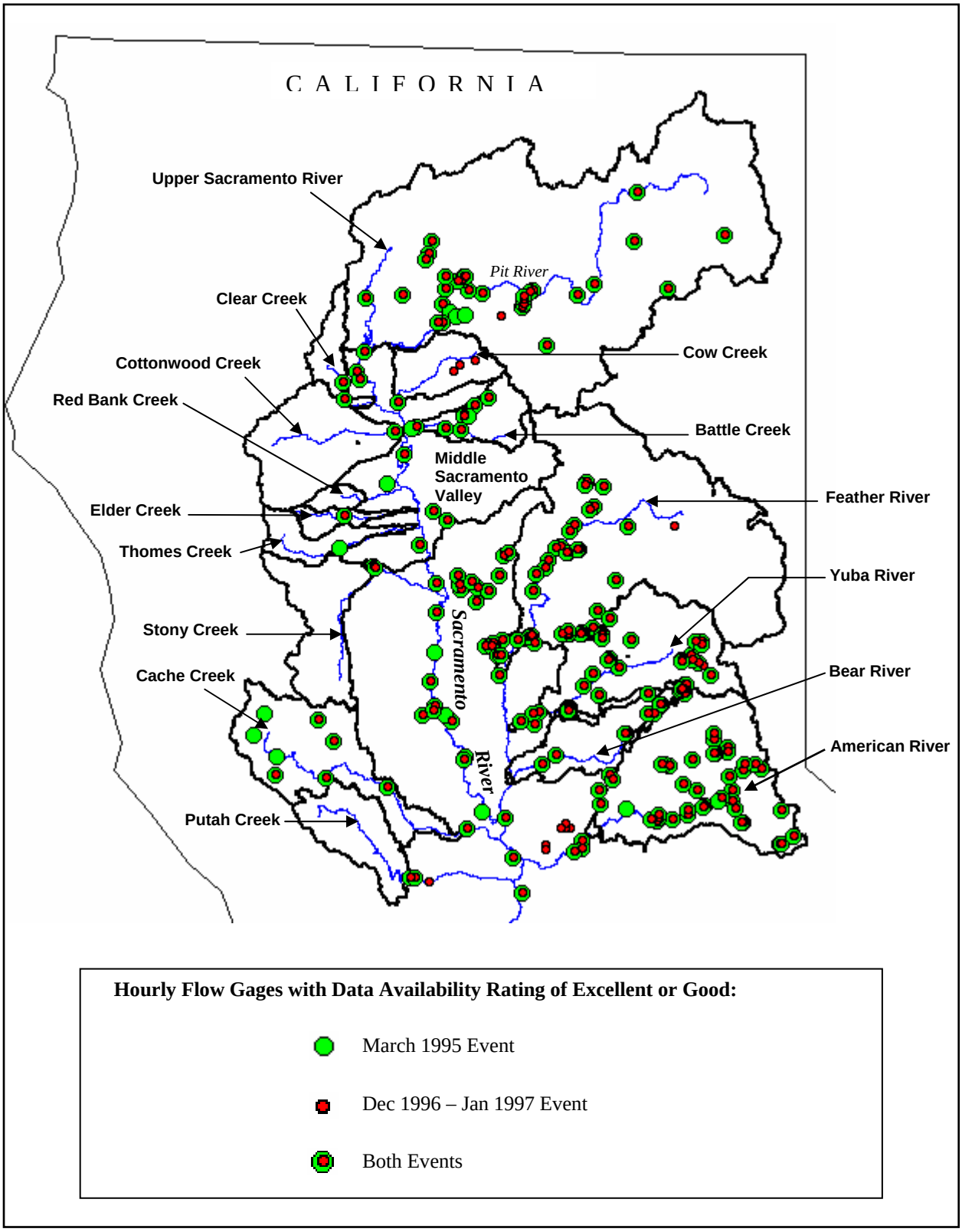


Figure 3-1. Sacramento Watershed: Hourly Flow Gages with Data Availability Rating of Excellent or Good (2 Events)

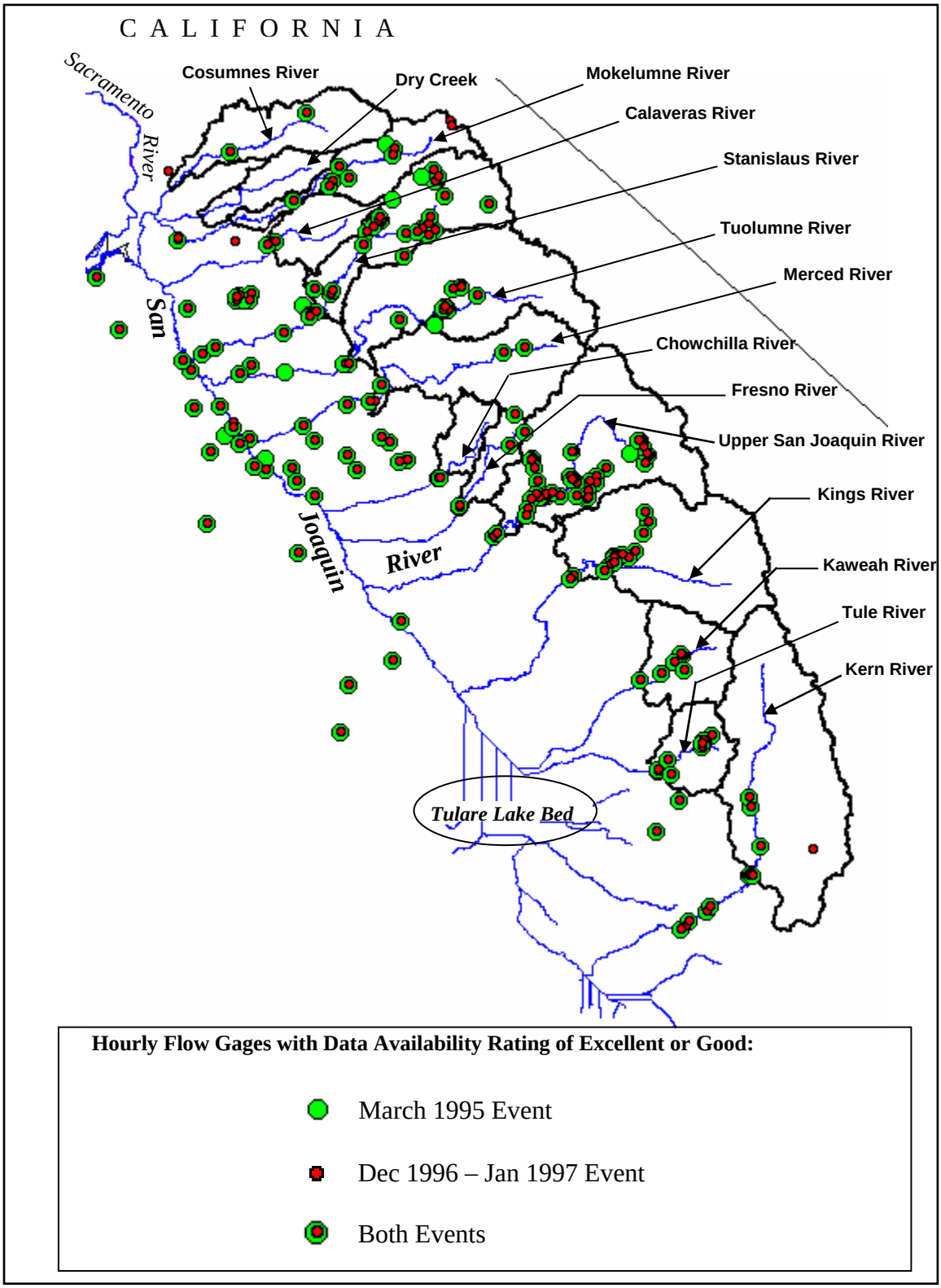


Figure 3-2. San Joaquin and Tulare Lake Bed Watersheds: Hourly Flow Gages with Data Availability Rating of Excellent or Good (2 Events)

Chapter 4

Hydrologic Model Construction

The Sacramento, San Joaquin and Tulare Lake Bed watersheds comprise nearly 60,000 square miles and include extremely variable terrain. To develop hydrologic basin models for these watersheds, HEC determined that GIS technology in the form of HEC-GeoHMS would be needed to complete the project in a consistent fashion and within the 10-month time period.

The purpose of HEC-GeoHMS is to facilitate the creation of hydrologic models through GIS. GeoHMS, an ArcView® extension, uses functions from Spatial Analyst extension to analyze the terrain and calculate estimates of the physical characteristics of the subbasins. GeoHMS performs automated stream and subbasin delineation and calculates many physical characteristics used for the estimation of hydrologic parameters. The physical characteristics of the streams and subbasins are calculated directly from the terrain data by GeoHMS. Tools within the program allow modelers to delineate their subbasins at gages, reservoirs, and important project locations. In short, GeoHMS significantly reduces the time and effort required to consistently develop estimates of the physical characteristics of subbasins and ModClark grid-based parameters represented in HEC-HMS models.

With the aid of GeoHMS, HEC was able to develop and calibrate 33 individual HEC-HMS models for the main tributaries and portions of the valley floors of the Sacramento, San Joaquin and Tulare Lake Bed watersheds. These models encompass approximately half of the total drainage area of the three watersheds (33,144 square miles out of 60,000 square miles).

4.1 HEC-GeoHMS Organization

The GeoHMS extension adds two view types and a number of customized menus, tools, and buttons to ArcView®. The first of the GeoHMS view types is the “MainView”, which is used to produce hydrologic derivative grids from a digital elevation model (DEM). Hydrologic derivatives include flow direction, flow accumulation, watershed boundaries, and stream locations. The second view type is the “ProjectView”, which is used to derive HEC-HMS basin models files from the hydrologic derivative grids produced in the “MainView”. In the “ProjectView”, the user can divide the basin into subbasins, routing reaches and other HMS modeling elements. These elements are stored in ArcView® GIS themes. Once this division is completed, GeoHMS estimates physical characteristics (see “Section 4.2.6, Physical Characteristics Extraction”) of the subbasins and reaches and stores the values of those characteristics in the attribute tables of the GIS themes. Finally, GeoHMS develops an HMS schematic for the basin and stores it in a file that can be imported into HMS.

Runoff for the subbasins in this study was estimated using the ModClark rainfall-runoff transform method (Kull and Feldman, 1998; Peters and Easton, 1996) which uses grids of precipitation as inputs. This method requires a parameter file, called the “gridcell file” to link

cells in the precipitation grids to subbasins in the HMS model. For each subbasin in the HMS model, the gridcell file lists the precipitation cells that overlap the basin, the area of the portion of each cell that lies within the subbasin, and a travel distance from the cell to the subbasin outlet. In this study, precipitation was reported on the Standard Hydrologic Grid (SHG) which was developed by HEC (Evans, 1998) based on the Albers equal-area map projection. GeoHMS estimates gridcell parameters by intersecting watershed boundaries with cells in the SHG, and estimates the travel distances for the precipitation cells by tracing a path from each DEM cell to the subbasin outlet following the flow direction grid, and calculating an average of those distances over each precipitation cell in the subbasin.

4.2 HEC-GeoHMS Process

Following the GeoHMS procedures developed by HEC staff, each modeling team developed estimates of the physical characteristics necessary for a hydrologic study. In addition, given that the program was still under development, each team member helped to test, provide feedback, and ultimately strengthen GeoHMS. With the help of this study, GeoHMS has become a viable GIS software product for hydrologic applications.

The major steps in the GeoHMS process are terrain processing, watershed delineation, subbasin delineation, physical characteristics extraction, and HMS input data generation. In the terrain processing stage, terrain data is brought into GeoHMS. The program processes and analyzes the terrain data to develop the watershed drainage patterns. In the watershed delineation stage, stream gage locations, project point-of-interest locations, and other guidelines were used with the watershed drainage information to determine suitable watershed outlets for the hydrologic modeling. Once the watershed delineation step was completed, subbasins were delineated and physical characteristics of the subbasins and streams were computed and stored as attribute tables in *.dbf format. These tables were exported to spreadsheet templates, developed at HEC for estimating hydrologic runoff parameters. In the final step, the GIS representation of the watershed was transformed into hydrologic data files for input into HMS. The three files generated were the background map file (mapfile.map), basin model file (hmsfile.basin), and grid cell parameter file (ModClark.mod). The GeoHMS process is detailed in the following sections. For complete information on HEC-GeoHMS, refer to the HEC-GeoHMS User's Manual (HEC, 2000).

4.2.1 Terrain Processing

As discussed in "Chapter 2, Digital Elevation Model Construction", a few initial terrain preprocessing steps were performed for the modeling teams. Because a large amount of computer memory was required to complete these compute-intensive steps, HEC's UNIX-based workstation computers were used to perform the Fill Sinks, Flow Direction and Flow Accumulation steps.

The Fill Sinks step creates a depressionless DEM. Thus, any local depressions are raised to the elevations of the surrounding 30-meter grid cells. This step helps to assure that positive

drainage will occur throughout the watershed. The results of this step need to be scrutinized since large depressed areas may in fact exist and may influence the amount of runoff to a given location.

The Flow Direction step creates a flow direction grid by determining the direction of steepest descent for each cell. This step essentially creates the flow paths.

The Flow Accumulation step determines the number of upstream grid cells flowing to a given grid cell. By knowing the size of the grid cell (which is constant for a given study) and the number of grid cells flowing to any point, the drainage area to that point is computed by multiplying the number of contributing grid cells and the cell size. Later in the GeoHMS process, contributing drainage areas are easily determined based on the number of grid cells flowing to any other grid cell.

The modeling teams were then tasked with the following steps:

1. Obtain the filled or "hydrologically-corrected" DEM file for their study area.

2. In HEC-GeoHMS, start a new study and add the DEM as a grid theme in the "Main View".

3. Create the following grids:

   A.) Stream Definition: This step creates a stream grid from the flow accumulation grid and a user-specified flow threshold. For this study, the threshold was set to either 50 square miles or one percent of the drainage area of the basin being modeled. The purpose of this step was to determine where and when a stream starts in the grid (i.e., the lower the threshold, the finer the definition; and, therefore, the more streams that would appear on the grid). For example, if the threshold was set to 50 square miles, then a stream would not be initiated until it had at least 50 square miles draining to it. The drainage paths delineated from the DEMs were compared with existing hardcopy maps. In some cases, these comparisons revealed flaws in the DEMs that had to be corrected before the model development could be completed. This step, coupled with the Stream Segmentation step, determine how many subbasins are automatically delineated by GeoHMS.

   B.) Stream Segmentation: This step identifies the stream segments (links between tributary junctions) using the flow direction and stream grids. Therefore, the number of streams that are displayed during the Stream Definition step directly impacts the number of stream segments that are identified.

   C.) Watershed Subdelineation: This step creates subbasin drainage areas. Each stream segment created in the previous step (Stream Segmentation) will now have its own drainage area. The finer the stream network is defined, the more subbasins will automatically be created.

4. Once grids are developed, convert the watershed and stream segmentation grids into polygon and line shapefile themes, respectively. The Watershed Polygon Processing step converts the watershed grids. The Stream Segment Processing step produces the line shapefile (in vector format) which represents the defined river network theme.

4.2.2 Watershed Delineation

The final step of GeoHMS's "Main View" is to identify the individual project or basin models. An outlet point for each of the basin models was identified (project models are defined by their outlet). The stream gage theme or existing HEC-HMS or HEC-1 studies proved useful when locating the outlets. The 14 DEMs were then subdivided so that each drainage basin could be modeled separately. For example, in Figure 4-1, one study area "Main View" exists, but three basin models have been identified: Stony Creek, Cache Creek, and Putah Creek. GeoHMS allows the user to select the outlet of the project model, and then, based on the results of the preprocessing steps, automatically makes a copy of the required themes and extracts out the individual basin models. The physical characteristics of the individual basin models are automatically saved to an attributes table, thus saving many hours of manual, labor intensive measurements. Once individual basin models were identified, modelers switched from the "Main View" to the "Project View".

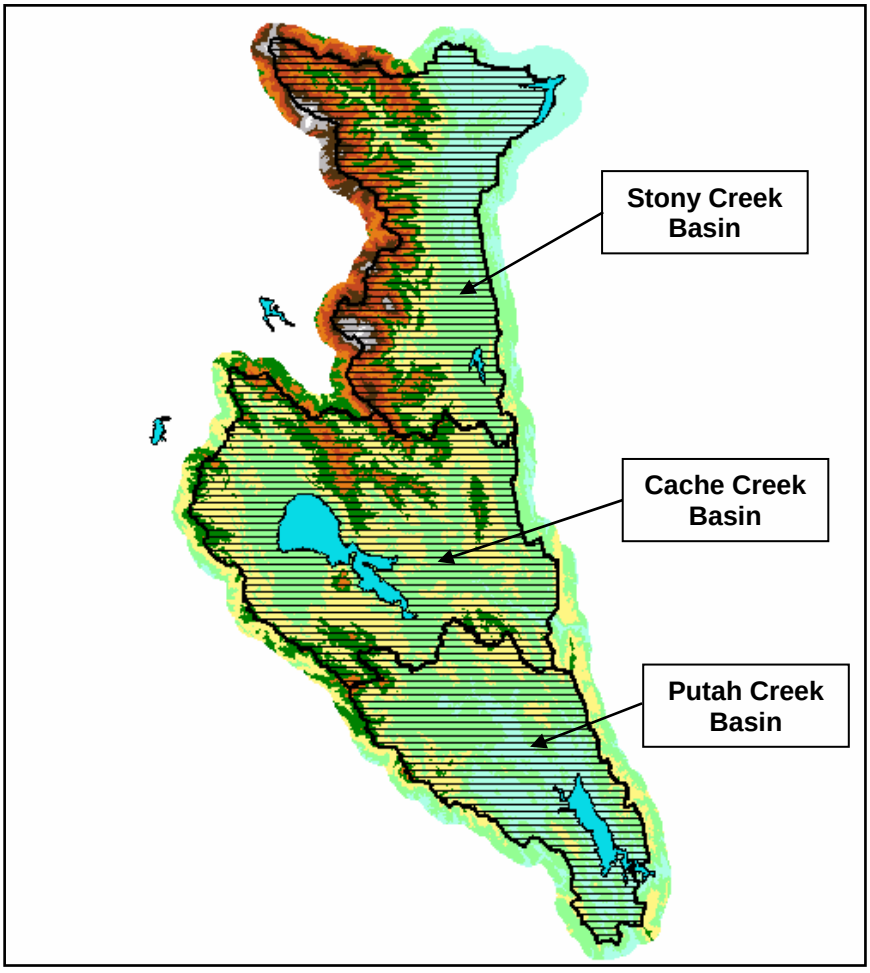


Figure 4-1. HEC-GeoHMS MainView of a Study Area Delineated into Three Basins

Using GeoHMS, the 14 study areas were divided into 33 individual HMS basin models as follows: 19 basins in the Sacramento watershed (as shown in Figure 4-2); 10 basins in the San Joaquin watershed (as shown in Figure 4-3); and 4 basins in the Tulare Lake Bed watershed (as shown in Figure 4-4).

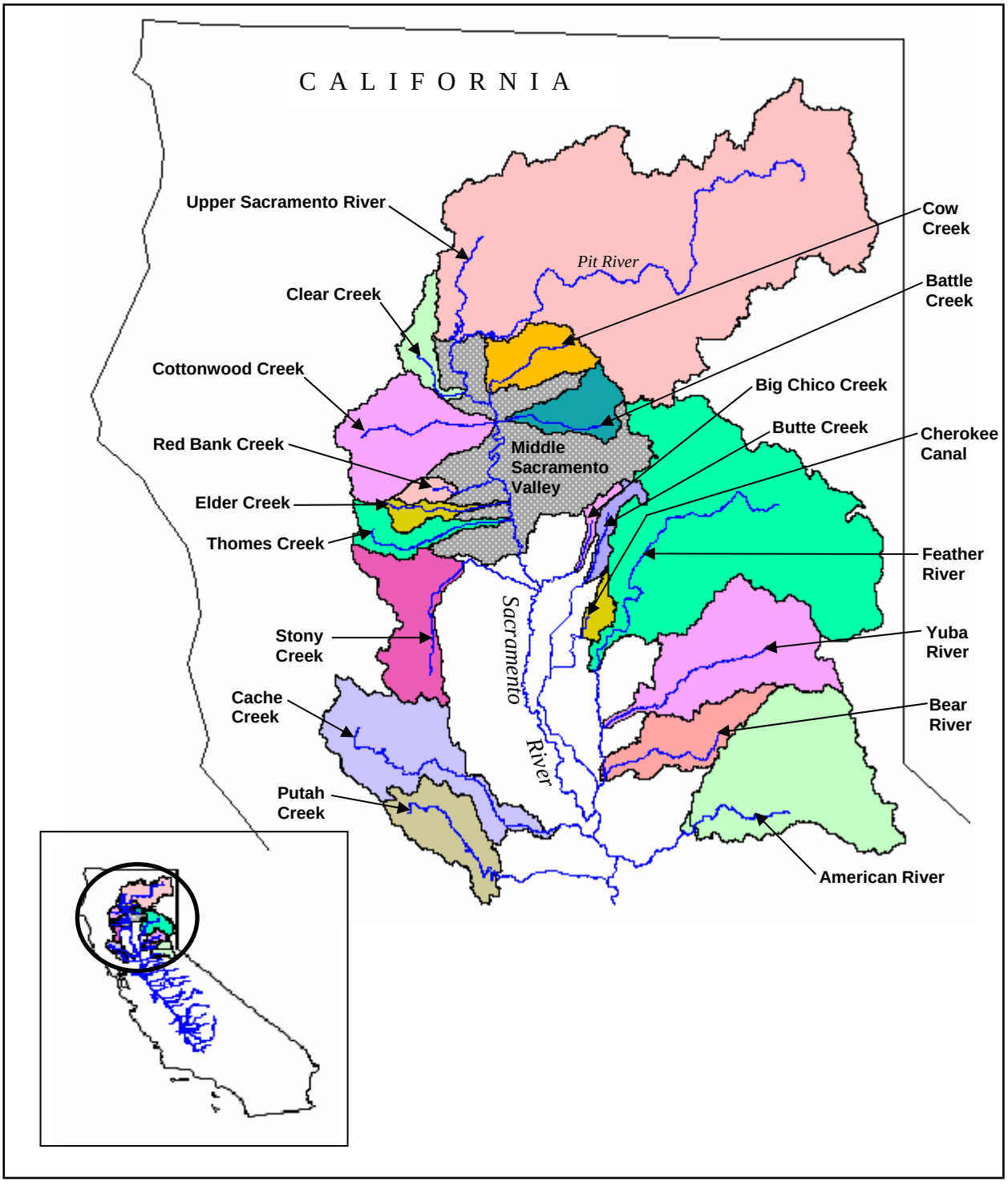


Figure 4-2. Sacramento Watershed: 19 HEC-GeoHMS Basins

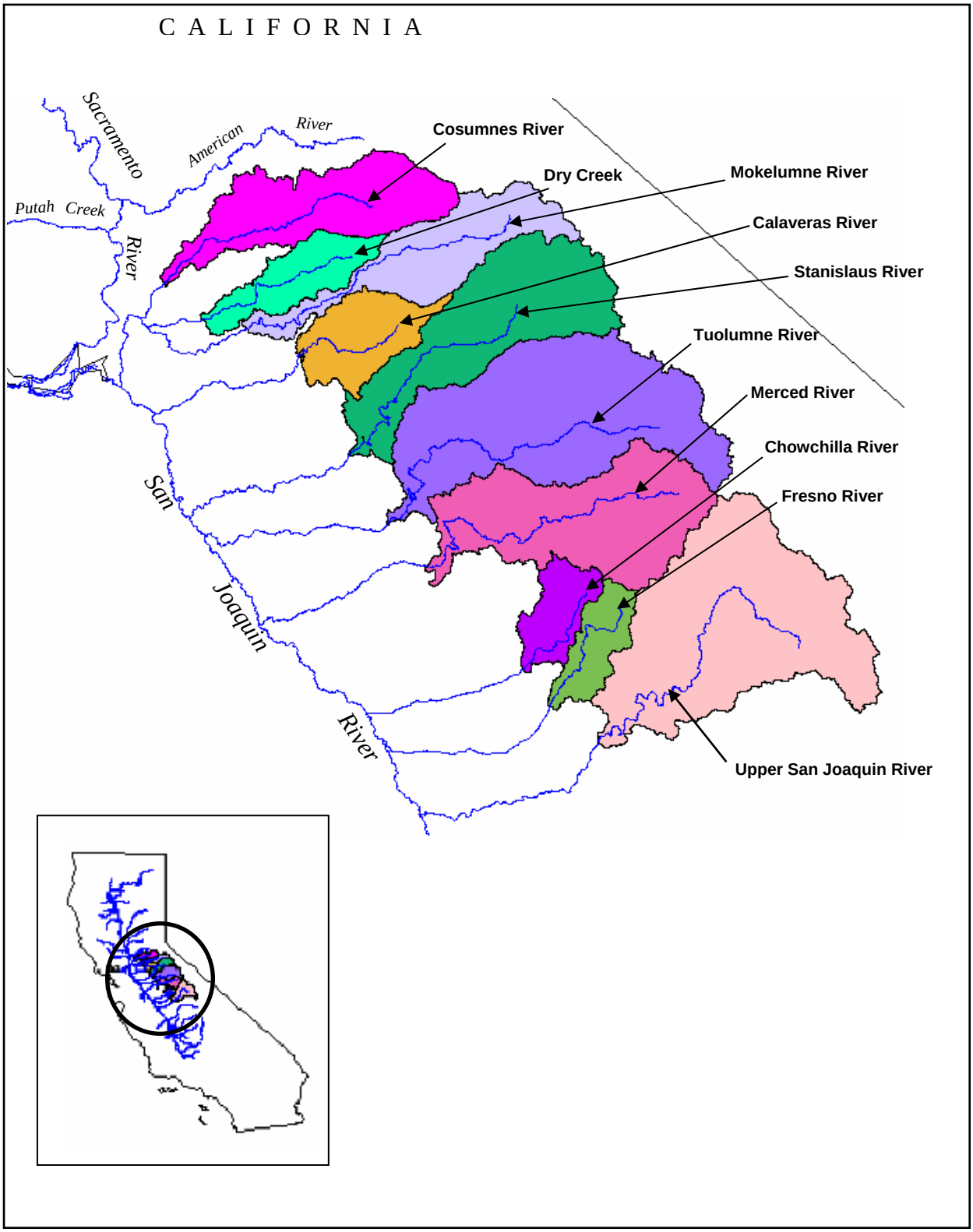


Figure 4-3. San Joaquin Watershed: 10 HEC-GeoHMS Basins

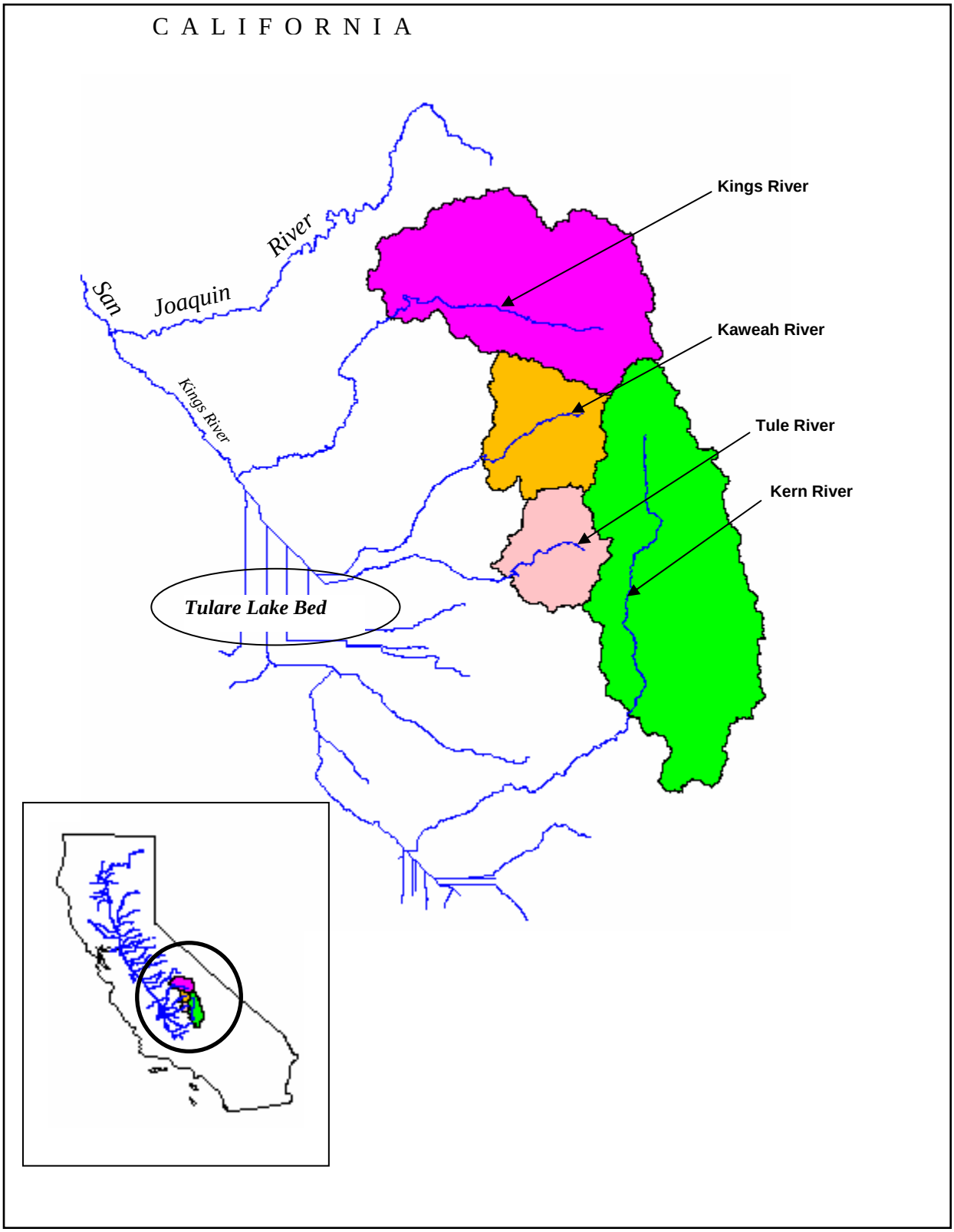


Figure 4-4. Tulare Lake Bed Watershed: 4 HEC-GeoHMS Basins

4.2.3 Modeling Guidelines

With 11 teams performing the analyses, the detail, direction, naming convention, and model construct needed to be consistent. Therefore, HEC established modeling and naming guidelines for the teams prior to model design.

Guidelines for delineating basin models with GeoHMS included:

- Subbasins should have a minimum drainage area of 50 square miles.
- Subbasins should have a maximum drainage area of 500 square miles.
- Subbasins should be delineated at hourly flow and daily flow gages even if less than 50 square miles. Early in the process, it was clear that gages representing very small drainage areas were not going to be used due to the large size of the study so some gages were not used to delineate a basin. Additionally, in cases where hourly gages did not exist but daily flow gages were present, daily gages were brought into GeoHMS as a separate layer to help delineate subbasins.
- Subbasins should be delineated at all reservoirs with storage of 10,000 ac-ft or more. The District suggested the 10,000 ac-ft limit for consistency with ongoing HEC-5 modeling. Occasionally, smaller reservoirs were also used to help delineate subbasins.
- Subbasins should be delineated at all hydrologically important locations such as tributaries or where a change in the stream grade occurs that would significantly effect the characteristics for a subbasin routing reach.
- Subbasins should be delineated at locations identified by the District as VIP (Very Important Points).

Because the study area was so large, HEC decided to adopt as a general guide the minimum size of a subbasin as 50 square miles or greater. However, there were numerous occasions when smaller subbasins were used. Within GeoHMS, the minimum subbasin size could be controlled. The Stream Definition step (previously described in "Section 4.2.1, Terrain Processing") initiated the delineation process by defining where the streams and rivers were located. The modelers elected to have GeoHMS initiate a stream or river when one percent of the drainage area was accumulating to a given point. For example, if their basin was 1000 square miles, the beginning of all streams would start when approximately 10 square miles of area had accumulated to a given point. Once the streams and rivers were defined, the initial junction locations for all the models were then automatically developed during the Stream Segmentation step. Stream segments connect: two successive junctions; a junction with an outlet; or, a junction with the drainage divide. The automated subbasin delineations would then occur based on the stream segments. Each stream segment would have its own subbasin delineation. Therefore, a more defined stream definition generates more stream segments which in turn creates a greater number of automatically delineated subbasins.

In general, the automated delineation process was useful. Each team provided a critical review of the automated delineations and either added additional delineations at gages (or other hydrologically important points) or combined subbasins, when appropriate.

4.2.4 Naming Conventions

The naming conventions used for the HEC-GeoHMS and HEC-HMS modeling elements (subbasins, junctions, routing reaches, reservoirs, and diversions) are provided below. Conventions were needed because there were numerous basin models being developed concurrently, and consistent approaches were needed between 11 modeling teams and their models.

Each element name consisted of two parts (separated by a space): 1.) a two-letter basin code indicating the river basin and 2.) a brief description of the element. This two-part element name was limited to 20 alphanumeric characters and did not contain any of the "special" HEC-DSS characters (i.e., @, /, ?, ...). This name was used as the B-Part of the pathname for storing computed flow values into HEC-DSS. The element name began with a two-letter basin code that indicated which river basin was being modeled. Basin codes are presented in Table 4.1.

The basin code was followed by a numeric value for the element. The numbering of elements started with the headwaters of the basin and increased in numerical order going downstream. The numeric value was based on the following types of elements:

- **SUBBASIN** elements were assigned "even numbers", incremented by intervals of two. For example, in the American River Basin, subbasin elements were numbered AM2, AM4, AM6, etc. The subbasin number was followed by one space and then an abbreviated element description that was concise and understandable, using "suggested" abbreviations as recommended in Table 4.2. Note that a "full description" of each subbasin could be provided in the description area for each subbasin.

- **JUNCTION** elements were "odd numbers" whose value was determined based on the proximity to the subbasin elements. For example, in the American River Basin, the junction element at the outlet of subbasin element AM24 was specified as AM25.

- **ROUTING REACH** elements were "hyphenated labels" that include the upstream end of the reach and the downstream end of the reach. For example, in the American River Basin, the routing reach between junction 33 and junction 35 would be named AM33-AM35.

- **RESERVOIR** element names were similar to the subbasin names except that a letter "R" could be used between the basin code and the number. For example, if the numbered elements were incremented such that Folsom Reservoir (in the American River Basin) was number 102, then the element name would be AMR102 (note the inserted "R" for Reservoir).

- **DIVERSION** element names were similar to the junction names except that a letter "D" could be added between the basin code and the number. For example, if the numbered elements were incremented such that a diversion within the American River Basin was number 81, then the element name would be AMD81 (note the inserted "D" for Diversion).

Examples of element names are shown in Table 4.3 and are illustrated in Figure 4-5.

Table 4.1 Basin Codes for the Sacramento, San Joaquin and Tulare Watersheds

Basin Name	Two-letter Basin Code
Sacramento Watershed	
Upper Sacramento	US
Middle Sacramento	MS
Lower Sacramento	LS
Clear	CL
Cottonwood	CO
Red Bank	RB
Elder	EL
Thomes	TH
Stony	ST
Cache	CA
Putah	PU
Cow	CW
Battle	BA
Big Chico	BC
Butte	BU
Cherokee Canal	CC
Feather	FE
Yuba	YU
Bear	BE
American	AM
San Joaquin Watershed	
Cosumnes	CN
Mokelumne	MO
Calaveras	CV
Stanislaus	SL
Tuolumne	TO
Merced	ME
Chowchilla	CH
Fresno	FR
Upper San Joaquin	SJ
Tulare Lake Bed Watershed	
Kings	KI
Kaweah	KA
Tule	TU
Kern	KE

Table 4.2 Suggested Abbreviations for Descriptive Part of the Element Names

Description	Abbreviation
River	R
Creek	Cr
Branch	Br
Slough	Sl
Above	Ab
Below	Bl
Near	Nr
At	At
Upstream	US
Downstream	DS
North Fork	NFk
Middle Fork	MFk
South Fork	SFk
North	N
South	S
East	E
West	W
Gage	Ga
Little	Lt
Local	Loc
Inflow	Inf
Outflow	Out
Reservoir	Res
Diversion	Div

Table 4.3 Example Element Names (for B-part of DSS Pathname)

Type of Element	Example Element Name (limited to 20 characters)	Full Description
Subbasin	AM24 MFk Nr Auburn	Middle Fork of American River Near Auburn
Subbasin	CL40 Clear Cr Nr Igo	Clear Creek Near Igo, CA
Junction	ST17 Stony Nr Fruto	Stony Creek Near Fruto, CA
Routing Reach	YU5-YU7	Yuba River Basin, Route from Junction 5 to Junction 7
Reservoir	USR44 Shasta Res Inf	Upper Sacramento River Basin, Shasta Reservoir Inflow
Diversion	FED25 Orovil Fsh Hat	Feather River Basin, Diversion to Feather River Fish Hatchery Near Oroville

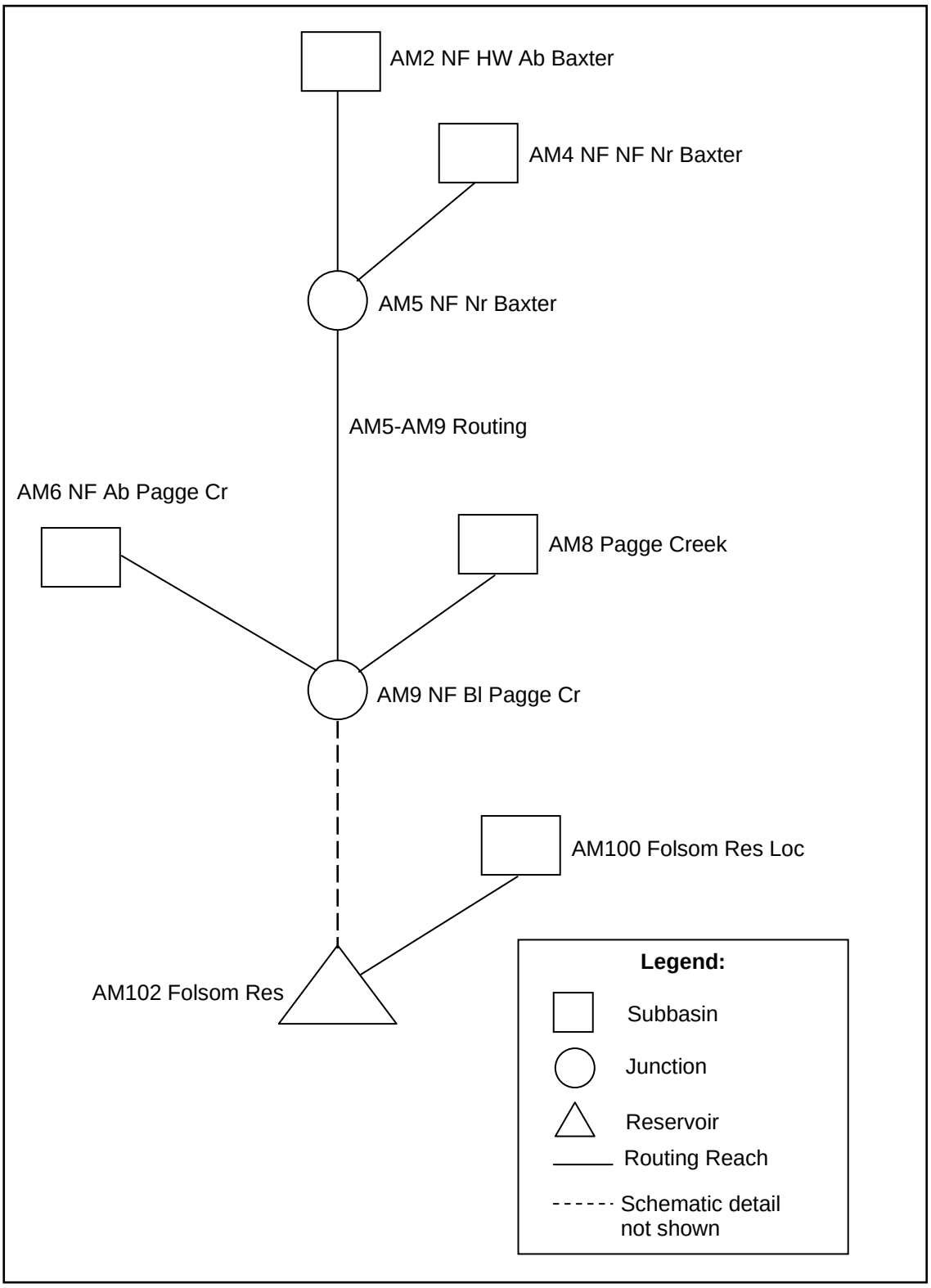


Figure 4-5. Schematic with "Example Element Names" (American River Basin)

4.2.5 Subbasin Delineations

After individual basin models were identified and modeling and naming guidance were available, the detailed hydrologic modeling effort began. The subbasins originally developed by GeoHMS in the preprocessing steps may or may not have been appropriate for the detailed HMS modeling. The watershed delineation functions in GeoHMS such as "Basin Merge" or "Basin Split" allowed modelers to redelineate or combine subbasins at any gages or other hydrologic points-of-interest. An example of two subbasins being identified and ready to be merged is shown in Figure 4-6.

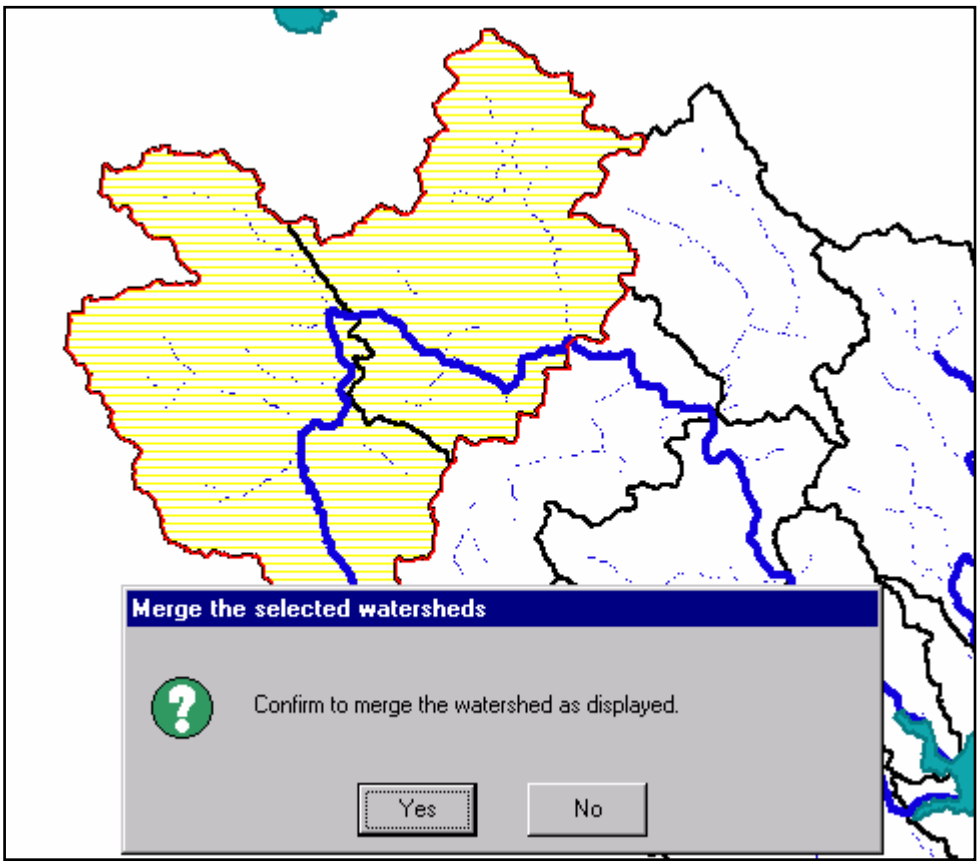


Figure 4-6. Confirmation of Basin Merge in HEC-GeoHMS

Hourly and daily gages were used to delineate basins so flows recorded at those locations during the two events (1995 and 1997) could be used to calibrate the models. In GeoHMS's "Project View", original subbasins, river reaches and junctions were identified. When a subbasin was split or combined, river reaches and junctions for each of the new subbasins were automatically redefined.

Based on existing HEC-1 and HEC-HMS studies, hard copy detailed maps of their basins, ArcView® layers of existing rivers, lakes, flow and stage gages, interstates and state highways, and places (including regions, cities, and other points of interests), the modeling teams used tools within GeoHMS to subdivide or combine the original subbasins. One such tool is the

River Profile tool which plots the streambed profile for visual inspection. If the streambed slope changed significantly at a certain location, the subbasin may have been subdivided at that location. An example stream profile through a selected subbasin is shown in Figure 4-7.

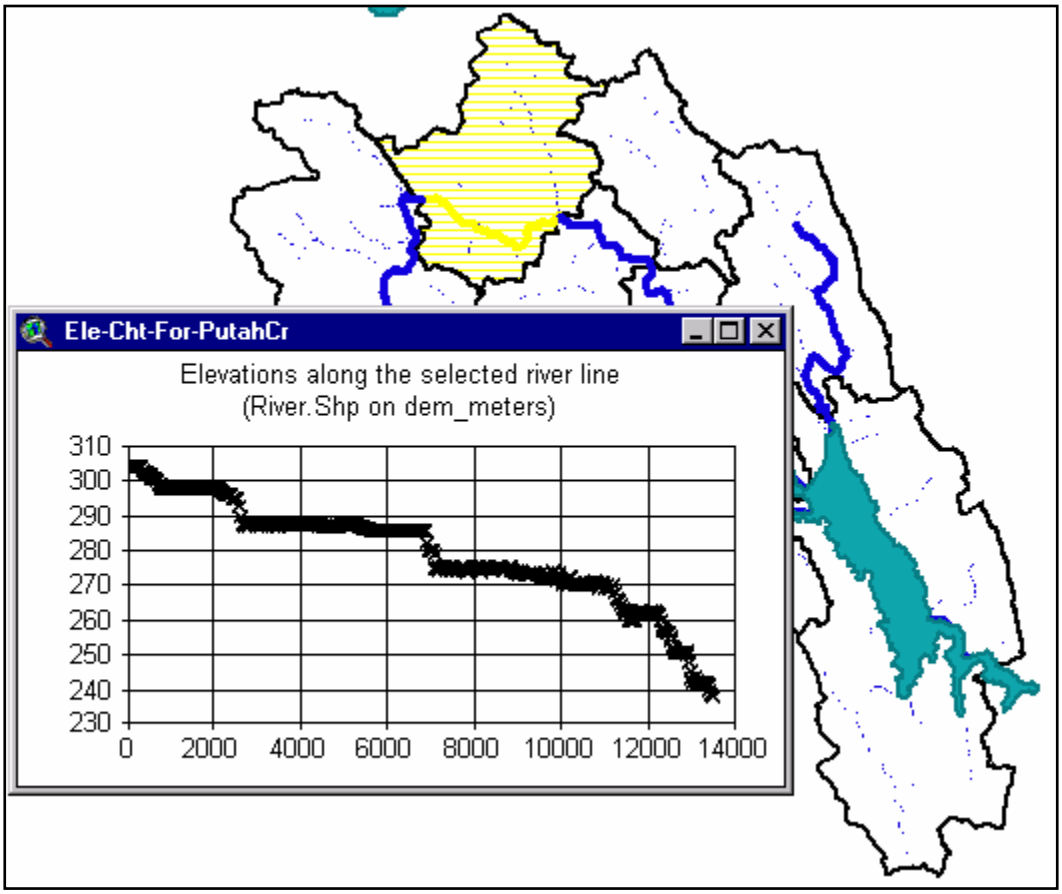


Figure 4-7. Example Stream Profile through a Selected Subbasin

Once the subbasins were delineated, estimates of the physical characteristics were automatically calculated. The division of the subbasins could have been done manually using hard copies of topographic quad sheets, but the computation of all the physical subbasin characteristics, if done manually, would have taken an enormous amount of time.

4.2.6 Physical Characteristics Extraction

The physical characteristic estimates developed automatically by GeoHMS include the subbasin area, river length, river slope, stream invert profile, subbasin centroid location and elevation, longest flow path for each subbasin, and the length along the stream path from the centroid to the subbasin outlet. Each of these characteristics were then saved to theme attribute tables in a database (*.dbf) format. Since GeoHMS was used to develop the HMS models, the drainage areas and hydrologic elements were automatically transferred to the HMS models via

the HMSfile.basin file. The HMSfile.basin file contains element connectivity information to create a schematic representation of the HMS basin model. Additional data (such as reservoir elements and their associated storage-outflow relationships or diversion descriptions and rating data), had to be incorporated into the HMS models during the detailed HMS modeling effort. Existing HEC-1 models and Reservoir Regulation manuals and reports were used as sources for this additional data.

Many of the physical characteristics were copied to Excel spreadsheet templates that contained hydrologic equations used to help estimate hydrologic parameters. The hydrologic parameters were used to assist with parameter optimization, regression analysis, and calibration process (which are discussed in detail in "Chapter 6, HEC-HMS Model Construction"). Many of these hydrologic parameters were then entered into the HMS models. *Appendix D* includes basin and river reach parameter tables that list physical characteristics for subbasins in each of the HMS models.

At this point, the physical constructs of the HMS models were completed and the primary data remaining to be entered into the HMS models were the precipitation, baseflow and losses. Without GeoHMS, it is doubtful that HEC would have been able to develop the HMS models as quickly, consistently, or accurately.

4.2.7 HMS Input Model Generation

In addition to the HMSfile.basin file, GeoHMS creates two other files (mapfile.map and ModClark.mod) that are directly importable into HMS. The mapfile.map file contains coordinates used in HMS for a visual representation of a background map showing the subbasin and stream delineations. The ModClark.mod file includes the grid-cell areas and travel lengths necessary for the ModClark rainfall/runoff transformation.

Since GeoHMS initially labeled each subbasin with a generic numerical value, each modeling team made revisions to the watershed.dbf file (within GeoHMS) to reflect the naming conventions established for the study. This information was subsequently extracted to the files used by HMS. An example of a HMS schematic representation created in GeoHMS if shown in Figure 4-8.

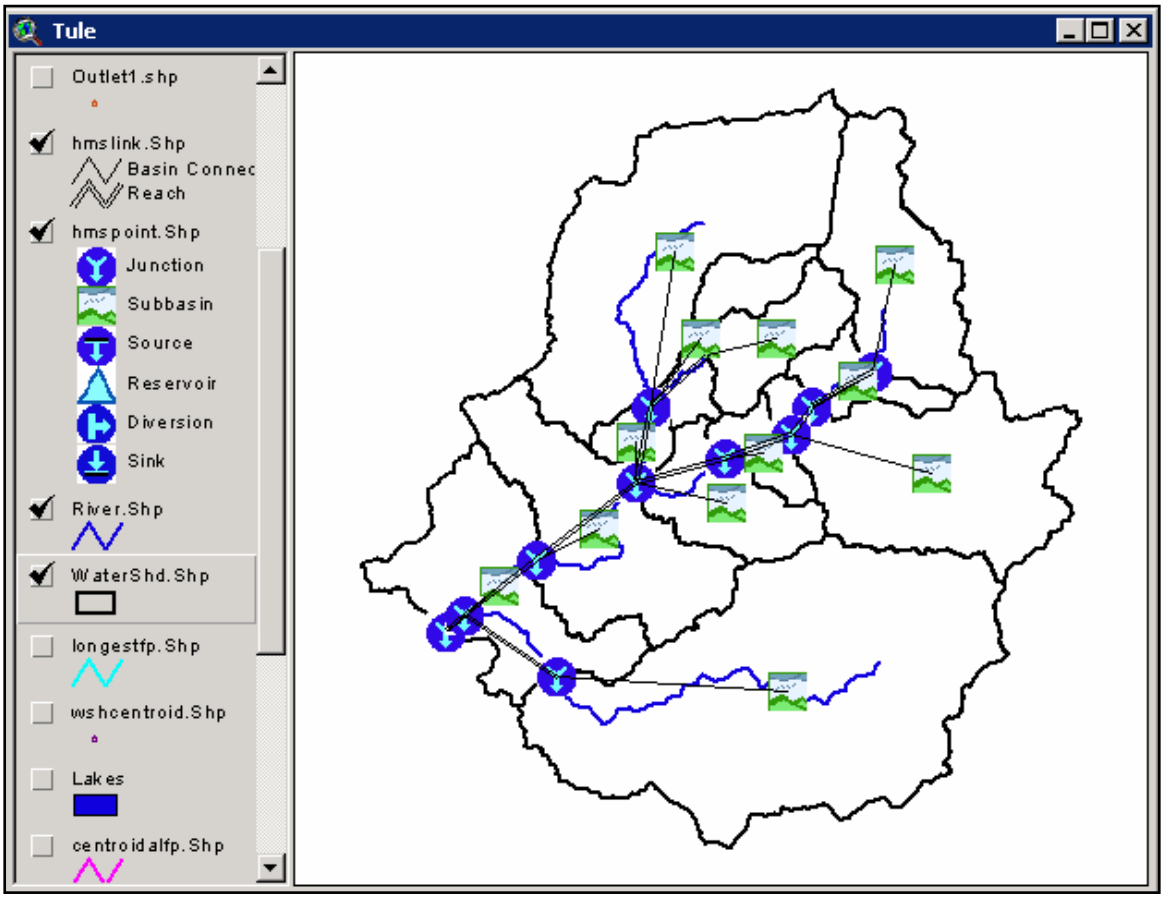


Figure 4-8. Example HMS Schematic Created in GeoHMS (for Tule River Basin)

Chapter 5

Precipitation and Snowmelt

The runoff that led to high waters in March 1995 and December1996 - January 1997 was a combination of rainfall and snowmelt. A heavy and warm rain falling on a deep and early snowpack created the December 1996 - January 1997 event. The warmer temperatures melted a portion of the snowpack and the ensuing snowmelt runoff contributed to the volume and peak of the event. In contrast, during the March 1995 event, some headwater subbasins, mostly in the San Joaquin tributaries, were accumulating snow when the downstream gages were experiencing peak runoff.

To effectively estimate the amount of snowfall, snow accumulation, and snowmelt, a snowmelt model was developed. HEC contracted with the USACE's Engineering and Research Center's Cold Regions Research and Engineering Laboratory (ERDC/CRREL) to develop and use their Distributed Snow Process Model (DSPM). ERDC/CRREL used gridded layers of precipitation, temperature, snow water equivalent, and snow covered area to generate the combined amount of excess rainfall or snowmelt for each grid cell for each hour of each of the two events. This coverage of total liquid water at the soil surface (LWASS) was then used in the HEC-HMS model ModClark transform. ERDC/CRREL's snowmelt modeling effort paralleled HEC's development of the HEC-HMS basin models.

5.1 GageInterp

During the data acquisition phase, precipitation gages were located for both events: 327 were found for the March 1995 event and 346 were found for the December 1996 - January 1997 event. Of these, approximately one half reported on an hourly basis. All hourly gages were used for this study and, when appropriate, data were screened for possible anomalies.

Gaged precipitation for both events was converted to gridded layers of precipitation depth using HEC's GageInterp (HEC, 1999) program. Input to the program includes locations of all gages to be used in the calculation, origin and extent of the grids to be calculated, and time-series (in the form of a record in HEC-DSS) for each of the gages. GageInterp calculates the distance from the center of each cell to each of the gages, and then calculates a weight to be assigned to each gage within a user-specified distance of the cell. For this study, the weights were calculated based on the inverse of the distance squared from the cell to the gage. During the calculation of grid values, the program reads precipitation depths from the gaged time series in regular intervals. For each time interval, it calculates the weighted average of the precipitation depths reported at the gages within a user-specified range of the cell. Gages not reporting during a given time step are not included in the averaging calculations for that grid. The result is a sequence of gridded layers, each representing an estimated distribution of precipitation depths for one time interval.

GageInterp's weighted-average calculation method has a limitation in that it does not account for orographic effects in its interpolation of precipitation values. If gages are present at high elevations, the interpolation between gages will reflect the orographic effects in the same way that it represents other influences that cause variation in precipitation rates. In the absence of gages in such locations, however, GageInterp has no basis to represent the effects of elevation on precipitation amounts. In the Sierra Nevada, and other mountainous regions within the Sacramento-San Joaquin/Tulare System, an under-estimation of precipitation amounts at high elevations may have occurred.

For the Sacramento-San Joaquin Comprehensive Study, precipitation grids were calculated at one-hour intervals for two events (March 1995, and December 1996-January 1997). For the March 1995 event, a total of 172 gages reporting hourly or more frequent precipitation depths were used in the grid calculation. For the 1996-1997 event, 198 such gages were used. The grids were defined using HEC's Standard Hydrologic Grid (SHG) system with a cell size of 2km (resulting in an area of 4 sq. km for each cell). Three segments (Sacramento, San Joaquin and Tulare) of the SHG were used to cover the study area. The following list identifies the grid segments by the row and column number of their origin (lower left) cell and the number of rows and columns in the segment. The longitude and latitude are also given for the lower left corner of the origin cell.

Sacramento grid:

Origin: column -1147, row 981 (122° 38'35" W, 37° 46'53" N)
Extent: 229 rows by 166 columns
94 gages available for March 1995 event
111 gages available for December 1996-January 1997 event

San Joaquin grid:

Origin: column -1122, row 876 (121° 27'11" W, 36° 5'52" N)
Extent: 142 rows by 156 columns
73 gages available for March 1995 event
95 gages available for December 1996-January 1997 event

Tulare grid:

Origin: column -1093, row 770 (120° 13'30" W, 34° 24'5" N)
Extent: 144 rows by 124 columns
52 gages available for March 1995 event
65 gages available for December 1996-January 1997 event

Note that the sum of the number of gages used for each event (219 and 271 gages for 1995 and 1997 events, respectively) is greater than the total number of gages available for the event (172 and 198 gages for 1995 and 1997 events, respectively), because some gages were used in calculations on two grids. For example, a gage on the southern limit of the Sacramento

grid would be used to estimate precipitation depths in both the Sacramento River and San Joaquin River / Tulare Lake Bed grids.

The GageInterp process calculated hourly gridded rainfall records for each grid-cell for the events. The precipitation files were then provided to ERDC/CRREL where the data were used as input to snowmelt models for areas where detailed HMS analysis was to be performed.

5.2 Snowmelt

HEC delivered the gridded hourly precipitation, snow water equivalent (SWE), snow course, and temperature data to ERDC/CRREL's, Remote Sensing/GIS and Water Resources Branch. HEC contracted with ERDC/CRREL to develop hourly estimates of snowmelt and/or precipitation amounts required as input to the HEC-HMS models. Their results cover the periods of two major runoff events: December 14, 1996-January 31, 1997 and March 6-31, 1995. ERDC/CRREL implemented two main functional elements: a system for mapping snow extent and water equivalent; and, a spatially distributed snow model. Measurements from the NOAA Advanced Very High Resolution Radiometer (AVHRR) were used to make maps of snow covered area (SCA) representing snow extent as fractional cover per pixel (a 1 km grid cell). When merged with interpolations of ground-based measurements of snow water equivalent (SWE) from snow sensors and courses, the resulting maps estimated the spatial distribution of the total water volumes of snow. These maps were then used as the estimates of SWE that served as the initial conditions for ERDC/CRREL's Distributed Snow Process Model, DSPM (Daly, 1999).

The snow model used by DSPM was SSARR_grid. SSARR_grid was extracted from the Stream Synthesis and Reservoir Regulation (SSARR) model (USACE, 1987) "Snow-Band" snowmelt computation. This procedure estimates the liquid water available at the soil surface for a grid cell for one time step. The snow process algorithm can be briefly described as follows. Each cell is assumed to be at a single elevation and to be entirely snow covered, or entirely snow free. A time step may be any interval less than or equal to 24 hours. Precipitation on the cell may be intercepted by vegetation before reaching the snowpack or soil surface. In the present study, interception by vegetation was not considered. Snowmelt is computed with the temperature index method. The melt rate coefficient was defined as a function of an antecedent temperature index. A separate melt rate coefficient is included for heavy rain. The cold content of the snowpack is simulated with an antecedent temperature index. The cold content accumulated during cold events must be satisfied before there can be melt runoff. Liquid water held in the snowpack is simulated with a "bucket" concept. The bucket's capacity is a percentage of the SWE that must be filled before meltwater can runoff.

SSARR_grid was calibrated for the watersheds based on the data collected at HEC. The DSPM (using hourly estimates of the air temperature and the precipitation) predicted the spatial distribution of snow accumulation ripening and melting for each of the 2 km grid cells within the Sacramento, San Joaquin and Tulare watersheds. DSPM estimated the amount of liquid water reaching the ground in each of the roughly 21,000 grid cells (where HMS models were to be

developed) as a result of snowmelt or precipitation for each hour of each of the two events that were simulated.

5.2.1 Snow Cover Area Mapping

Over most snow-covered areas, the extent of the snow cover varied more dynamically than the average depth. Therefore, melt water delivered to stream networks was highly sensitive to the fraction of the area and the patterns of snow cover. Data from the AVHRR consisted of measurements of the Earth's surface reflectance and emittance in five spectral bands. The first two bands primarily measured reflected radiation. The third and fourth bands primarily measured radiation emitted by the Earth's surface and atmosphere. The fifth band spanned the spectral range that included components of both reflected and emitted radiation from the surface during daytime periods. An algorithm splits the reflectance and emissive components from the fifth band, forming a third reflectance channel. From the three reflectance bands another processing algorithm determines the relative contribution of snow verses other land cover materials. The product consisted of a map of 1-km pixels (or grid cells) showing the fractional cover of snow in each pixel. In essence, each grid cell was given a value of one or zero. If the cell had a one, snow existed in the cell. If the cell was represented with a zero, it did not have snow. The cell snow water equivalent (SWE) was determined using the calculations described below. For this study, ERDC/CRREL constructed scenes with no cloud effects by selecting periods with few clouds and compositing images together to arrive at estimates of snow cover area (SCA) in each pixel that had clouds in one of the scenes. The compositing scheme used up to three images. In this case, the product represents the average snow extent over the three days. Compositing produced the SCA images on March 6, 1995 and December 14, 1996 that were used to produce the initial estimates of SWE for the DSPM.

Snow covered area maps were prepared for 23 days during the December 1996 - January 1997 event and for 12 days during the March 1995 event (see Figure 5-1 for an example of a SCA image). Information about the available SCA images is listed in Table 5.1. Available AVHRR imagery was obtained for all days during the study periods in which a portion of the snow-covered image was cloud-free. All obtained images were processed to create SCA maps. Table 5.1 lists visual estimates of the percent cloud cover over potential snow-covered terrain. The percent cloud cover in composited scenes is given along with date of composited images.

5.2.2 Snow Water Equivalent Mapping

Snow Water Equivalent (SWE) maps were used to initialize the DSPM. Taking the product of the SCA and the interpolated SWE in each grid cell created these maps. The result is an estimate of the total SWE in that cell. The interpolated SWE was based on ground-based gage or snow course measurements. Across the Sierra Nevada a number of stations measure the total SWE on the ground at any one time using sensors that determine the mass of the snow pack. These sensors provide an hourly or daily measurement. In addition, manual snow surveys typically performed once per month increased the number of locations possible to use for the SWE interpolation. To initialize the snow model, measurements from both courses and sensors were used. SWE commonly shows a relationship with elevation, which was exploited to carry

out the interpolation. For the Comprehensive Study, ERDC/CRREL found separate trends for the San Joaquin Basin, the Sacramento Basin and Tulare Basins. The interpolation process first calculated the linear trend of SWE with elevation for each basin on a daily basis using all the sensors within and near the basin. Next, the algorithm de-trended the measurements by lapsing them down to sea level. The lapsed gage readings and their geographic locations were input to the ArcInfo® Grid's IDW command to perform the inverse-distance-squared weighted interpolation into a continuous surface of SWE. Values were then lapsed back to actual elevation using a 1:250,000 scale DEM.

ERDC/CRREL then multiplied this preliminary interpolation of SWE with SCA to produce maps of the SWE extent. SWE data were loaded into HEC-Data Storage System (DSS) using HEC's ai2dssGrid utility. This SWE data was the initial SWE used by DSPM. This procedure was used to estimate the SWE on March 6, 1995 and December 14, 1996 (see Figures 5-2 and 5-3, respectively).

5.2.3 Distributed Snow Process Model Input

The DSPM required the following input: estimates of air temperature and precipitation for each hour for each SHG cell; initial SWE in each SHG cell; a description of the SHG cells to be processed; snow input parameters required by SSARR_grid (discussed in "Section 5.2.4, Calibration of SSARR-grid"); and a control file that sets the starting and ending times of the simulation and other administrative parameters.

As discussed in "Section 5.1, GageInterp", the precipitation values for each hour of the event periods were estimated using HEC's GageInterp program (HEC, 1999). The initial SWE for each SHG cell was estimated using the procedure described in "Section 5.2.2, Snow Water Equivalent Mapping". The description of the SHG cells to be processed was also developed by the HEC staff. The SHG information was further processed at ERDC/CRREL to consolidate the description files for each of the three major watersheds.

Temperature Interpolation: In the first step of the temperature interpolation, the hourly temperature data were processed to eliminate positive and negative spikes. Visual inspection of the temperature data was found to be necessary to further eliminate "flat-lined" or spurious data that fell in the range of reasonable data. Next, the hourly temperature lapse rate was determined based on the temperature stations located within and near the basin. Separate trends were found for the San Joaquin, Sacramento and Tulare Basins. Next, the algorithm de-trended the measurements by lapsing them down to sea level. The lapsed gage readings and their geographic locations were input to ArcInfo® GRID's IDW command to perform the inverse-distance-squared weighted interpolation into a continuous surface of temperature. Values were lapsed back to actual elevation using a 1:250,000 scale DEM. An example of the temperature interpolation is shown in Figure 5-4. Temperature data were loaded into DSS using HEC's ai2dssGrid utility.

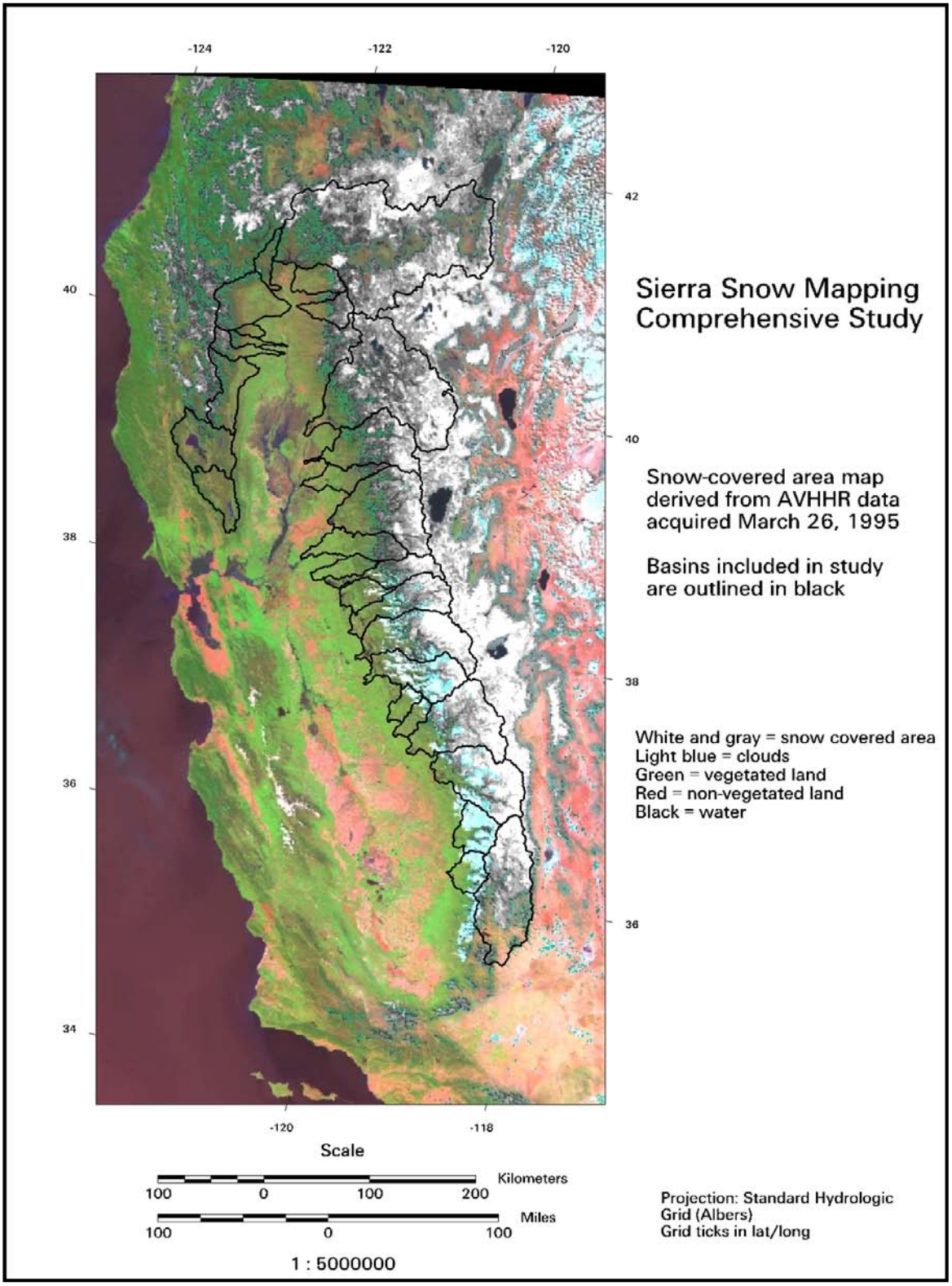


Figure 5-1. Example of a Snow Covered Area (SCA) Map (March 26, 1995)

Table 5.1 Information about Available Snow Covered Area (SCA) Images

Image Date (Dates of processed imagery)	**Clouds Cover (%)** (Percent Cloud Cover in Each Image)	**Composite Images** (Dates of Composited Images with Resultant Cloud Cover)
6 March 1995	10	6 & 7 March = 10%
7 March 1995	30	
12 March 1995	60 *	
15 March 1995	20	15 & 16 March = 5%
16 March 1995	20	
19 March 1995	70	19 & 21 March = 75%
21 March 1995	90	
24 March 1995	70	
25 March 1995	10	24, 25 & 26 March = Clear
26 March 1995	Clear	
29 March 1995	10	29 & 30 March = Clear
30 March 1995	<10	
2 December 1996	70	2 & 3 December = 20%
3 December 1996	70	
7 December 1996	70	
12 December 1996	90 *	
13 December 1996	10 *	
14 December 1996	<10	14 & 15 December = Clear
15 December 1996	50	
16 December 1996	50	
19 December 1996	10 *	
20 December 1996	90	
23 December 1996	50	
25 December 1996	40	
31 December 1996	<<10	
3 January 1997	60	
6 January 1997	10 *	
7 January 1997	20	
8 January 1997	60	7, 8 & 9 January = Clear
9 January 1997	40	
11 January 1997	Clear	
18 January 1997	30	
27 January 1997	90	
29 January 1997	10	
31 January 1997	90	
** Snow Covered Area (SCA) maps of limited value due to poor quality of imagery.*		

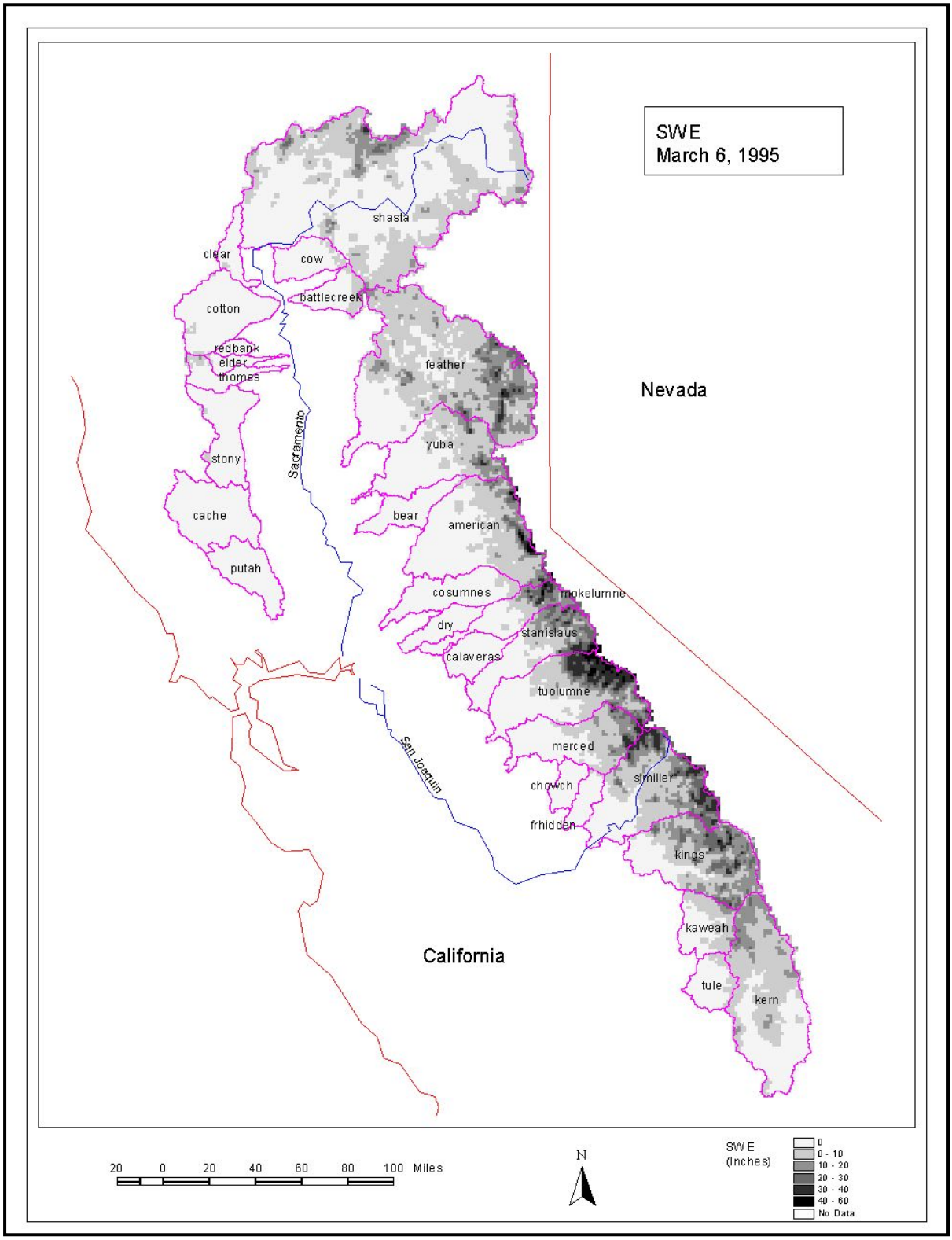


Figure 5-2. Interpolated Snow Water Equivalent (SWE) Map (March 6, 1995)

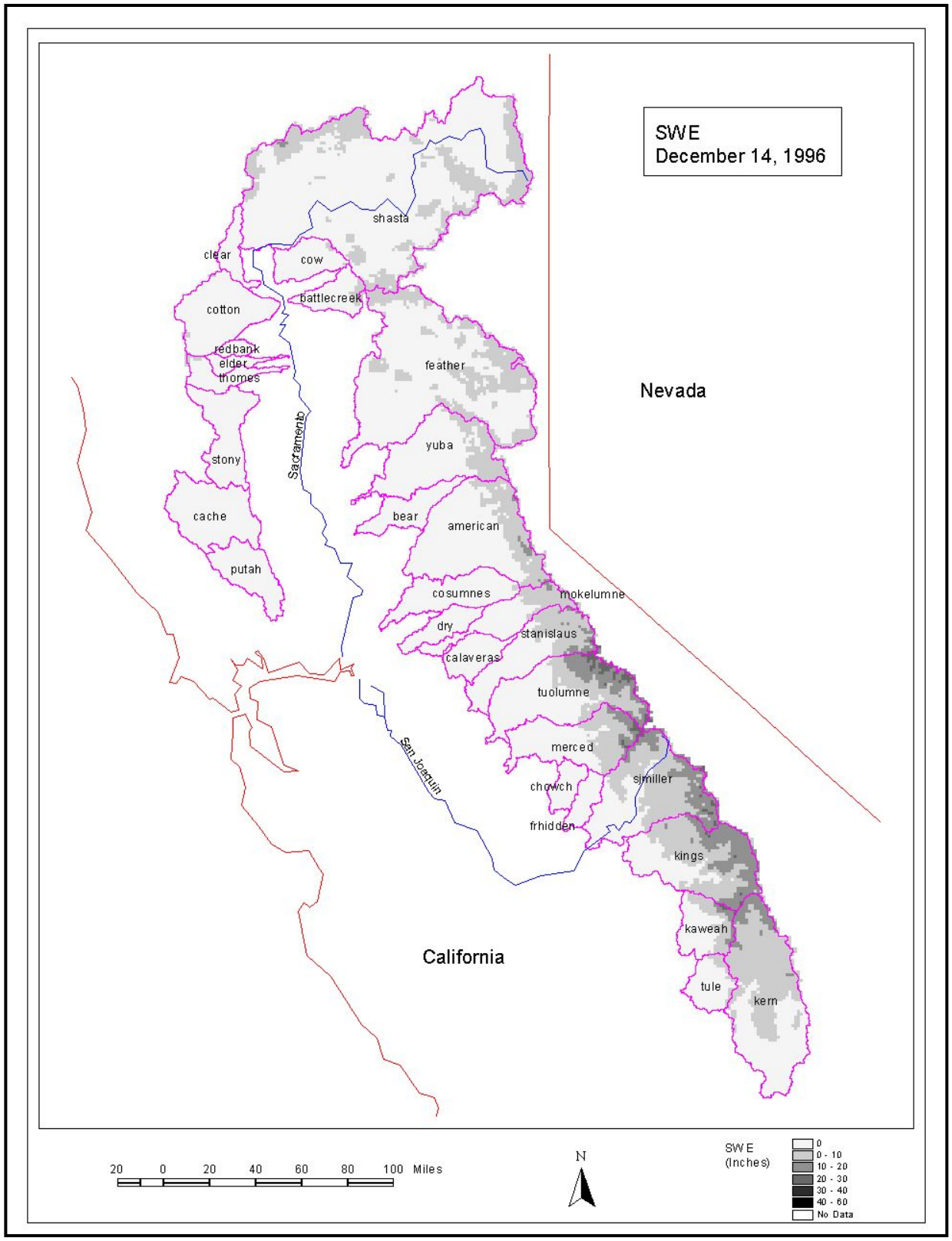


Figure 5-3. Interpolated Snow Water Equivalent (SWE) Map (December 14, 1996)

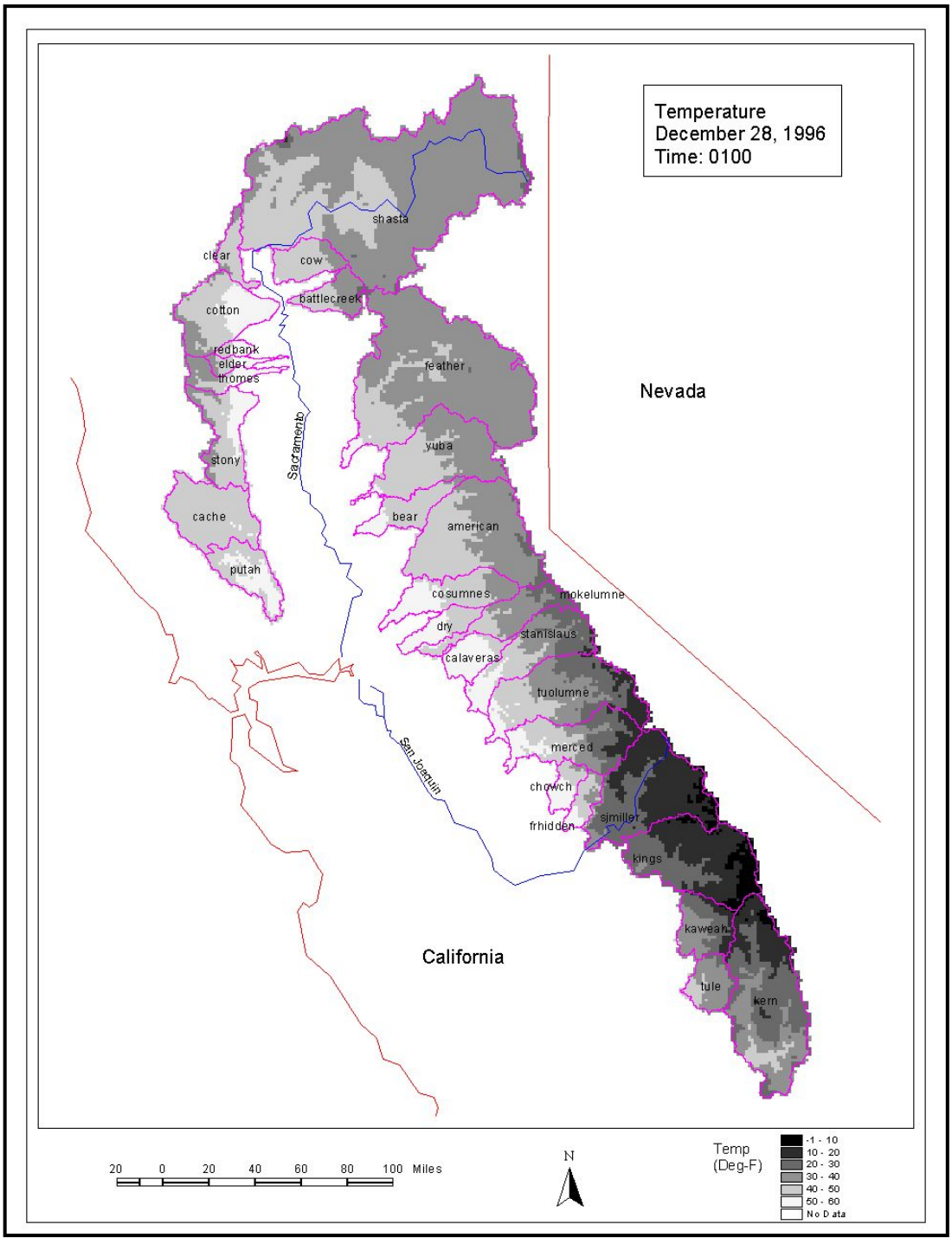


Figure 5-4. Example of Interpolated Temperature Values (December 28,1996)

5.2.4 Calibration of SSARR_grid

SSARR_grid requires a number of parameters. These watershed data parameters and corresponding descriptions are listed in Table 5.2. It is necessary to set the value for all these parameters prior to applying the SSARR_grid model. ERDC/CRREL chose to optimize the value of the base temperature to estimate the heat transfer (BASE), the temperature used to separate rain and snow events (PX), the rain melt factor (RainMelt_rate), and the snowmelt factor (ATIMR). The snowmelt factor was set to be a linear function of the antecedent temperature index (ATI) for small values of ATI and then constant for larger values. Seasonal trends in the melt factor could be accounted for in this way.

Calibration Data: Hourly temperature, SWE, and precipitation data from 22 stations in the Sierra Nevada were used to calibrate SSARR_grid. The stations and the time periods used are listed in Table 5.3. Although temperature, precipitation and SWE data were collected at 34 stations from 1985 -1999, 14 stations had no "good" data and about 50% of the data from the remaining stations also had to be excluded. Data segments that were excluded had large time periods of missing values for one or more of the variables, unrealistic temperature values (e.g., no temperature data below 40 ºF or constant values) or when SWE was much larger than the accumulated precipitation. Data used were "cleaned-up" using routines in DSSMATH (HEC, 1995b) to remove spikes, dropouts and interpolate values for missing data.

Optimization Procedure: The optimized values were determined to minimize the sum-of-squares difference between the SWE values calculated by SSARR_grid and the measured SWE. The SSARR_grid used a one-hour time step. The optimization was conducted using the *downhill simplex method* of Nelder and Mead (1965) as presented by Press *et al.* (1992). This method belongs to the class of multidimensional minimization procedures.

Optimization Results: The optimized values of **BASE**, **PX**, **RainMelt_rate**, and **ATIMR** are listed in Table 5.4. At first, an optimized value of each of these parameters was found for each winter period for each station. However, no discernable trend was found between the value of the optimized parameters and either the elevation of the station or the latitude of the station. Therefore, it was decided to pool all the stations and all the years of data to produce one set of optimized results for the entire study area. These pooled results are the values listed in Table 5.4.

Table 5.2 SSARR_grid Watershed Data Descriptions

Data	Description
BASE	Base temperature to estimate heat transfer.
PX	Temperature to separate snow from rain.
Rain_MAX	Maximum rain rate for dry snow melt algorithm.
RainMelt_rate	Melt rate during rain.
ATICC_Snow_Max	Maximum precipitation rate for cold content accumulation.
ATIMR_Die_Away	Die-away coefficient for melting temperature ATI (antecedent temperature index).
ATICC_die_away	Die-away coefficient for cold temperature ATI.
Treeline	Treeline elevation.
IntMAX	Interception maximum.
PLWHC	Percent liquid water holding capacity.
GMLT	Ground melt constant.
MoVsInt	Paired data defining the relationship between month of year and interception.
TaVsPET	Paired data defining the relationship between temperature and effective evapotranspiration from intercepted snow.
PcpVsPctET	Paired data defining the relationship between precipitation and effective evapotranspiration from intercepted snow.
MoVsPctET	Paired data defining the relationship between month of year and evapotranspiration.
ElevVsPctET	Paired data defining the relationship between elevation and evapotranspiration.
ATIMR	Paired data defining the relationship between antecedent temperature index and melt rate and cold rate (e.g., snow melt factor).
MoVsPctMR	Paired data defining the relationship between month and melt rate.
MoVsGMLT	Paired data defining the relationship between month and the ground melt rate.

Table 5.3 Gaging Stations and Dates of Data Used to Calibrate SSARR_grid

Basin	Station	Start date	End date
Sacramento Watershed			
SHASTA	BIG FLAT	1-Dec-86	1-May-87
SHASTA	BIG FLAT	1-Nov-88	1-May-89
SHASTA	BIG FLAT	1-Nov-90	15-May-91
SHASTA	BIG FLAT	1-Nov-92	15-May-93
SHASTA	BIG FLAT	1-Dec-93	1-May-94
SHASTA	BIG FLAT	1-Dec-95	1-May-96
SHASTA	BIG FLAT	15-Oct-96	15-Apr-97
SHASTA	BIG FLAT	1-Nov-97	15-Jun-98
SHASTA	BIG FLAT	15-Oct-98	1-Jun-99
SHASTA	BLACKS MOUNTAIN	15-Nov-88	1-May-89
SHASTA	BLACKS MOUNTAIN	1-Feb-91	1-Jun-91
SHASTA	BLACKS MOUNTAIN	15-Nov-92	1-Jun-93
SHASTA	BLACKS MOUNTAIN	1-Nov-97	15-Jun-98
SHASTA	BLACKS MOUNTAIN	1-Nov-98	15-May-99
SHASTA	HIGHLAND LAKES	1-Dec-86	1-May-87
SHASTA	HIGHLAND LAKES	1-Dec-87	1-May-88
SHASTA	HIGHLAND LAKES	1-Nov-88	1-May-89
SHASTA	HIGHLAND LAKES	1-Dec-96	1-May-97
SHASTA	HIGHLAND LAKES	1-Nov-97	1-Jul-98
SHASTA	HIGHLAND LAKES	15-Oct-98	1-Jun-99
SHASTA	MEDICINE LAKE	1-Sep-89	1-May-90
SHASTA	MEDICINE LAKE	1-Nov-92	15-Jun-93
SHASTA	MEDICINE LAKE	1-Nov-93	15-May-94
SHASTA	MUMBO BASIN	1-Dec-86	1-May-87
SHASTA	MUMBO BASIN	1-Dec-87	1-Apr-88
SHASTA	MUMBO BASIN	1-Nov-88	1-May-89
SHASTA	MUMBO BASIN	1-Nov-91	15-May-92
SHASTA	MUMBO BASIN	1-Nov-92	15-May-93
SHASTA	MUMBO BASIN	1-Dec-95	1-May-96
SHASTA	MUMBO BASIN	15-Oct-96	15-Apr-97
SHASTA	MUMBO BASIN	15-Oct-98	1-Jun-99
SHASTA	PETERSON FLAT	1-Sep-96	1-May-97

… Continued …

Table 5.3 Gaging Stations and Dates of Data Used to Calibrate SSARR_grid *(Continued)*

Basin	Station	Start date	End date
Sacramento Watershed (continued)			
SHASTA	SCOTT MOUNTAIN	15-Nov-86	1-May-87
SHASTA	SCOTT MOUNTAIN	1-Dec-87	1-May-88
SHASTA	SCOTT MOUNTAIN	1-Nov-88	1-May-89
SHASTA	SCOTT MOUNTAIN	1-Nov-91	1-May-92
SHASTA	SCOTT MOUNTAIN	1-Nov-92	15-May-93
SHASTA	SCOTT MOUNTAIN	1-Dec-93	1-May-94
SHASTA	SCOTT MOUNTAIN	1-Dec-95	1-May-96
SHASTA	SCOTT MOUNTAIN	1-Nov-96	1-May-97
SHASTA	SCOTT MOUNTAIN	1-Nov-97	15-Jun-98
SHASTA	SCOTT MOUNTAIN	1-Oct-98	1-Jun-99
S FORK AMERICAN R	ALPHA (SMUD)	15-Nov-96	15-May-97
S FORK AMERICAN R	CAPLES LAKE	1-Nov-89	1-May-90
S FORK AMERICAN R	CAPLES LAKE	1-Nov-91	1-May-92
S FORK AMERICAN R	CAPLES LAKE	1-Dec-92	1-Jun-93
S FORK AMERICAN R	CAPLES LAKE	1-Nov-93	1-May-94
S FORK AMERICAN R	CAPLES LAKE	1-Nov-94	1-Jul-95
S FORK AMERICAN R	CAPLES LAKE	1-Dec-95	1-Jun-96
S FORK AMERICAN R	CAPLES LAKE	15-Oct-00	15-May-97
S FORK AMERICAN R	CAPLES LAKE	1-Nov-97	1-Jul-98
S FORK AMERICAN R	ROBBS SADDLE	1-Nov-98	15-May-00
S FORK AMERICAN R	SILVER LAKE (DWR)	15-Nov-88	1-May-89
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Nov-89	15-Apr-90
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Nov-92	15-May-93
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Nov-93	15-Apr-94
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Nov-94	15-Jun-95
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Dec-95	15-May-96
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Dec-96	1-May-97
S FORK AMERICAN R	SILVER LAKE (DWR)	1-Nov-97	1-Jul-98
S FORK AMERICAN R	SILVER LAKE (DWR)	15-Dec-98	1-Jun-99

… Continued …

Table 5.3 Gaging Stations and Dates of Data Used to Calibrate SSARR_grid *(Continued)*

Basin	Station	Start date	End date
San Joaquin Watershed			
COSUMNES	HIGHLAND MEADOW	1-Nov-93	1-Jun-94
DON PEDRO RES	TUOLUMNE MEADOWS	1-Jan-87	1-May-87
DON PEDRO RES	TUOLUMNE MEADOWS	1-Nov-91	1-May-92
DON PEDRO RES	TUOLUMNE MEADOWS	1-Dec-93	1-May-94
DON PEDRO RES	TUOLUMNE MEADOWS	1-Nov-94	15-Jun-95
DON PEDRO RES	TUOLUMNE MEADOWS	15-Dec-95	1-Jun-96
DON PEDRO RES	TUOLUMNE MEADOWS	1-Nov-96	15-May-97
LAKE MCCLURE	GIN FLAT	1-Dec-86	1-May-87
LAKE MCCLURE	GIN FLAT	1-Nov-91	1-May-92
LAKE MCCLURE	GIN FLAT	1-Nov-93	15-May-94
LAKE MCCLURE	GIN FLAT	1-Nov-95	15-May-96
LAKE MCCLURE	GIN FLAT	15-Oct-96	15-May-97
LAKE MCCLURE	GIN FLAT	1-Nov-97	1-Jul-98
MELONES RES	STANISLAUS MDW	15-Nov-88	1-Jun-89
MELONES RES	STANISLAUS MDW	1-Nov-89	1-May-90
MELONES RES	STANISLAUS MDW	1-Dec-95	1-Jun-96
SJ R @ FRIANT DAM	BIG MEADOWS	1-Nov-92	1-Jun-93
SJ R @ FRIANT DAM	BIG MEADOWS	1-Dec-95	15-May-96
SJ R @ FRIANT DAM	BIG MEADOWS	1-Nov-96	15-May-97
SJ R @ FRIANT DAM	BIG MEADOWS	15-Nov-97	1-Jul-98
SJ R @ FRIANT DAM	BIG MEADOWS	1-Nov-98	15-May-99

… Continued …

Table 5.3 Gaging Stations and Dates of Data Used to Calibrate SSARR_grid
(Continued)

Basin	Station	Start date	End date
Tulare Lake Bed Watershed			
UPPER KERN	BEACH MEADOWS	15-Nov-88	1-May-89
UPPER KERN	BEACH MEADOWS	1-Jan-91	1-May-91
UPPER KERN	BEACH MEADOWS	1-Nov-92	1-May-93
UPPER KERN	BEACH MEADOWS	15-Nov-93	1-Apr-94
UPPER KERN	BEACH MEADOWS	1-Nov-94	1-May-95
UPPER KERN	BEACH MEADOWS	15-Dec-95	15-Apr-96
UPPER KERN	BEACH MEADOWS	1-Dec-96	1-Apr-97
UPPER KERN	BEACH MEADOWS	1-Nov-97	15-May-98
UPPER KERN	BEACH MEADOWS	15-Jan-99	1-May-99
UPPER KERN	CRABTREE MEADOW	1-Dec-87	15-May-88
UPPER KERN	CRABTREE MEADOW	1-Dec-88	1-May-89
UPPER KERN	CRABTREE MEADOW	1-Nov-91	15-May-92
UPPER KERN	CRABTREE MEADOW	1-Nov-94	1-Jul-95
UPPER KERN	CRABTREE MEADOW	15-Dec-95	15-May-96
UPPER KERN	PASCOES	1-Nov-89	1-May-90
UPPER KERN	PASCOES	1-Nov-98	1-May-99
KINGS RIVER	CHARLOTTE LAKE	15-Dec-95	1-Jun-96
KINGS RIVER	CHARLOTTE LAKE	1-Feb-99	1-Jun-99
LAKE SUCCESS	QUAKING ASPEN	1-Dec-86	15-Apr-87
LAKE SUCCESS	QUAKING ASPEN	15-Nov-88	15-Apr-89
LAKE SUCCESS	QUAKING ASPEN	1-Nov-92	1-Jun-93
LAKE SUCCESS	QUAKING ASPEN	1-Nov-93	1-May-94
LAKE SUCCESS	QUAKING ASPEN	1-Nov-95	1-May-96
LAKE SUCCESS	QUAKING ASPEN	1-Nov-96	1-May-97
LAKE SUCCESS	QUAKING ASPEN	1-Nov-97	1-Jul-98
LAKE SUCCESS	QUAKING ASPEN	1-Nov-98	1-May-99

Table 5.4 SSARR_grid Watershed Data Values

Data	Value
BASE	*Optimized* 32.65°F
PX	*Optimized*: 34.97°F
Rain_MAX	0.02 inches/hour
RainMelt_rate	*Optimized* .1576 inches/°F
ATICC_Snow_MAX	0.04
ATIMR_Die_away	0.98
ATICC_die_away	0.90
Treeline	0
IntMAX	0.2
PLWHC	5.0
GMLT	0.02
MoVsInt	0
TaVsPET	4 -50 .1 0 .1 100 .5 9999 .5
PcpVsPctET	4 0 100 .5 80 1 20 9999 20
MoVsPctET	0
ElevVsPctET	0
ATIMR	3 0 *Optimized* .0030 .015 50 *Optimized* .2959 .02 9999 *Optimized* .2959 .02
MoVsPctMR	0
MoVsGMLT	1 1 .015

5.2.5 Distributed Snow Process Model Operation

The data required to simulate the study periods were assembled on a UNIX-based workstation computer. The simulation was broken up into three watersheds: Sacramento, San Joaquin and Tulare. Separate simulations were run for both study periods. DSPM was operated on a basin-by-basin basis and preliminary results were provided to the HEC staff for evaluation. The results from the DSPM were hourly liquid water available at the soil surface (LWASS) values for each grid cell for each event for each basin. The LWASS values replace the rainfall values that are normally applied in HEC-HMS modeling. The LWASS term incorporates snowmelt as well as rainfall (if the precipitation did not freeze or fall on the snowpack). After several iterations between ERDC/CRREL and HEC, the results of the entire DSPM effort were transferred to HEC. Directly imported into the meteorological models, the LWASS results were used in the HEC-HMS models.

In the vast majority of watersheds, the results from the DSPM were appropriate for estimating the runoff from the basins. However, for a few of the gages located at higher elevations, it was not always possible to calibrate to the observed flows. This is because the LWASS values were too small to generate the magnitude of runoff that was observed at the gage. Even with the losses (both initial and constant) set at zero, the magnitude of the runoff could not be matched. A probable cause of the inconsistency was that the precipitation values used to generate the LWASS were too small. Since the GageInterp program does not account for orographic effects, the precipitation values (and thus the LWASS values) in the higher elevations may have been underestimated (see Section 5.1 for application of GageInterp). It is also well known that strong winds produce systematic under-measurement of precipitation that falls as snow in precipitation gages that are primarily used to measure rainfall. The precipitation measurements were not corrected for wind under-catch in this study because accurate wind information was not available. If the discrepancy was considered too large, HEC-HMS functions (such as sources and sinks) were used. By using a sink, the computed flow from the upstream area was connected to a sink and thus removed from the model. To replace the computed flow, a source was brought in, and the observed hydrograph was connected to the model. The observed flow was then used downstream of that gage. A more detailed discussion and listing of HMS source and sink elements are provided in "Section 6.6.7, Model Sources and Sinks".

Chapter 6

HEC-HMS Model Construction

Because hourly flow gages did not exist at every subbasin outlet, regression analysis was performed to populate ungaged subbasins with runoff parameters. To develop the runoff parameters necessary for the regression analysis, HMS unit hydrograph baseflow and loss-rate parameter optimization models were developed at all of the upstream hourly flow gages for the unregulated headwater streams. Therefore, when hourly gages existed on an unregulated headwater stream, the modeling team had two models for their river basin: a parameter-optimization model and a detailed model. The parameter-optimization model included an individual unregulated headwater subbasin. The detailed models included all subbasins for that basin. Some teams may have had more than one parameter-optimization model for a given basin.

Once the unit hydrograph, baseflow, and loss-rate parameters were developed for the gaged, unregulated headwater streams, regression analysis for time of concentration (T_c) was performed. Specifically, the regression analysis looked for correlations between T_c and the physical characteristics of the subbasins such as length (L), slope (S), length of centroid (L_{CA}), and combinations of them. Once the regression analysis was completed, the ungaged subbasins were populated with the appropriate modeling parameters.

6.1 Parameter Optimization Models for Gaged Subbasins

GeoHMS assisted the HMS parameter optimization process by automatically developing physically-based modeling parameters. Also, since GeoHMS allowed the modeling teams to easily construct additional HMS sub-models, additional parameter-optimization models could be readily developed. For example, if a detailed HMS model included three subbasins contributing to an hourly gage, and if it was determined that the gage results represented an unregulated headwater stream, then GeoHMS allowed the modeling teams to define a new outlet point at the gage and cut out a new HMS model. GeoHMS combined the three subbasins that could now be modeled as a separate HMS model for optimization. GeoHMS allowed the modeling teams to develop numerous unit hydrograph and loss rate parameter-optimization models within their basins. GeoHMS also calculated estimates of physical characteristics for each basin including longest flow paths, slopes, stream lengths, and drainage areas. Once the initial runoff parameters were available for the gaged basin models, the parameters were estimated with optimization functions in HEC-HMS, which automatically adjusted the model parameters to find a best-fit solution for computed and observed runoff hydrographs.

To develop the parameter optimization models, each team's basin models needed to be delineated at the hourly gaged locations only. Typically, the gaged locations with good or excellent records for the 1995 and 1997 events were used. However, some gages rated as fair or poor were also used because the peaks of the events were captured. The observed flow could be

plotted to see what part of the hydrograph was missing. NHCPlot and/or DSPLAY (HEC, 1995c) were used to view the data.

It is important to note that not all gaged subbasins were used for optimization or regression. For example, gages located downstream of reservoirs were not used for the runoff parameter estimation because the resulting hydrograph included regulated flows. While HEC calibrated to those gages, HEC did not regress upon those gages because the upstream regulated reservoir creates a unique situation where the outflows from the reservoir would not be representative of another area. Typically, only subbasins of 500 square miles or less were used for the optimization. The original HEC guidance on delineation of the basins recommended that no subbasin be greater than 500 square miles. Therefore, there was no reason to develop regression equations to accommodate areas larger than 500 square miles. The more detailed models, developed separately, were further delineated to include other gaged locations (i.e., gages with long periods of record but poor data for one or both of the two events, gages representing areas larger than 500 square miles, or gages downstream of regulated reservoirs). Also, if the gage had considerable missing data or the volume and/or timing of the runoff was significantly different than the recorded precipitation, no further attempt was made to optimize parameters at that gage (for the event with incomplete data). The gaged subbasins that were specifically used for the parameter optimization process can be found in Table 6.1.

6.2 Estimating T_c from Gaged Subbasin Characteristics

After the physical characteristic estimates were developed for the optimized basins, the initial estimates for time of concentration (T_c) and the Clark storage coefficient (R) were estimated. Two methods to compute the initial time of concentration were considered. The first method was to use the procedures as documented in the NRCS's TR-55 publication, "Urban Hydrology for Small Watersheds" (NRCS, 1986). The second method was to estimate the average velocity (and thus, travel time) along the longest flow path for each of the optimized subbasins. GeoHMS developed the longest flow path directly, which was used by both methods.

Initially, HEC computed the time of concentration with the second method. However, when the average velocities computed from a generic equation were used, the T_c's were far too short and unrealistic. The computed peaks occurred far sooner than the observed peaks. Therefore, HEC went forward with the NRCS procedures.

To use the NRCS procedures, HEC separated the longest flow path into three segments: sheet flow, shallow concentrated flow and channel flow. The sum of these three components equaled the time of concentration for each subbasin.

Sheet Flow (Overland Flow):

$$T_o = 0.007(nL)^{0.8}/((P_2)^{0.5}(S)^{0.4}) \qquad \text{(Eq. 6-1)}$$

Where: T_o = Overland Flow Travel Time (hours)
n = Manning's Roughness Coefficient
L = Flow Length (feet)
P_2 = 2-year, 24-hour Precipitation (inches)
S = Land Slope (feet/feet)

The maximum overland flow length recommended by the NRCS of 300 feet was used for the overland flow lengths. The Manning's "n" value for overland flow through forested terrain was set to 0.4 and the P_2 value was read from the "NOAA Atlas 2, Precipitation-frequency Atlas of the Western United States, Vol. XI, California" (NOAA, 1973). The slope was found using the tools within GeoHMS. The slope and the precipitation value (P_2) were entered into a spreadsheet to calculate the overland flow travel time.

Shallow Concentrated Flow:

For shallow concentrated flow, only two parameters were necessary: slope and length. Both of these parameters were calculated using the tools within GeoHMS. Estimating the length for shallow concentrated flow is somewhat arbitrary. Therefore, in order to not measure every shallow concentrated flow path, 0.5 miles was selected to be the length of shallow concentrated flow. Both the slope and length values were entered into the spreadsheets and the shallow concentrated flow time was calculated.

Channel Flow:

For channel flow, Manning's Equation was used.

$$V = 1.49 / nS^{1/2} R^{2/3} \qquad \text{(Eq. 6-2)}$$

Where: V = Velocity (feet/second)
n = Manning's Roughness Coefficient
S = Stream Slope (feet/feet)
R = Hydraulic Radius (feet)

Each modeling team plotted the longest flow path profile for their subbasins to see if the profile had breaks in slope significant enough to warrant dividing the channel into multiple reaches. The longest flow path for each subbasin was used to calculate channel flow lengths. The lengths and elevations were read directly off of the plot to compute the slope(s).

Estimation of Manning's "n" and hydraulic radius were made through field measurements. Field estimates of the Manning's "n" values, top and bottom widths, and depths of the streams were taken at a number of key locations throughout the Sacramento River Basin. From the estimates of the cross-sectional measurements, a hydraulic radius was computed. Using the tools within GeoHMS, a representative slope at those locations was determined and the drainage area was computed with GeoHMS above those points. A relationship between the

drainage area (DA) and the hydraulic radius (R) was then estimated through regression analysis for each of these streams. The purpose of the relationship was to enable estimation of a hydraulic radius, knowing the drainage area at any point along a stream. The equations to compute the hydraulic radius for each of these streams are given as follows:

American River	$R = 0.0136(DA) + 7.56$	(Eq. 6-3)
Feather River	$R = 0.0043(DA) + 6.1$	(Eq. 6-4)
Yuba River	$R = 4.13\ln(DA) - 6.4$	(Eq. 6-5)
Putah, Cache and Stony Creeks	$R = 2.38\ln(DA) - 1.74$	(Eq. 6-6)
Pit River Mild Grassy Sections	$R = 2.81\ln(DA) - 8.68$	(Eq. 6-7)

Pit River Steep Rocky Sections — Used a value of R that was as close to a field measured R as possible. Due to the wide scatter of data, an equation was not fit for this area. To estimate the hydraulic radius for the streams in this area, the stream cross-section location for the reach in question was identified in GeoHMS and then its location was compared to the location of the field measured data. The hydraulic radius associated with the field data that was closest in proximity to the stream cross section in GeoHMS (making sure they were both on the same stream) was used as the hydraulic radius for the reach.

Plots of equations 6-3 through 6-7 are shown in Figures 6-1 through 6-5, respectively.

Next, the field estimated Manning's "n" values were compared to the Manning's "n" values that were calculated by Dr. Robert Jarrett's equation for steep streams (Jarrett, 1984).

$$n = 0.39\ S^{0.38}R^{-0.16} \qquad \text{(Eq. 6-9)}$$

Where: S = Friction Slope (approximated with the slope from GeoHMS)
R = Hydraulic Radius (calculated with the appropriate equation 6-3 to 6-7)

Given that there was good correlation between the estimated and calculated n-values, HEC decided to use Jarrett's equation. Once the Manning's "n" values were calculated, the velocity along any stream could be computed. Placing the values into a spreadsheet and knowing the reach length already developed with GeoHMS, the travel times for the channel flow time were calculated. *Note: This procedure was used again when the channel routing parameters were calculated for the detailed model.* All three flow time segments were automatically added in the spreadsheet to provide the overall T_c for that subbasin.

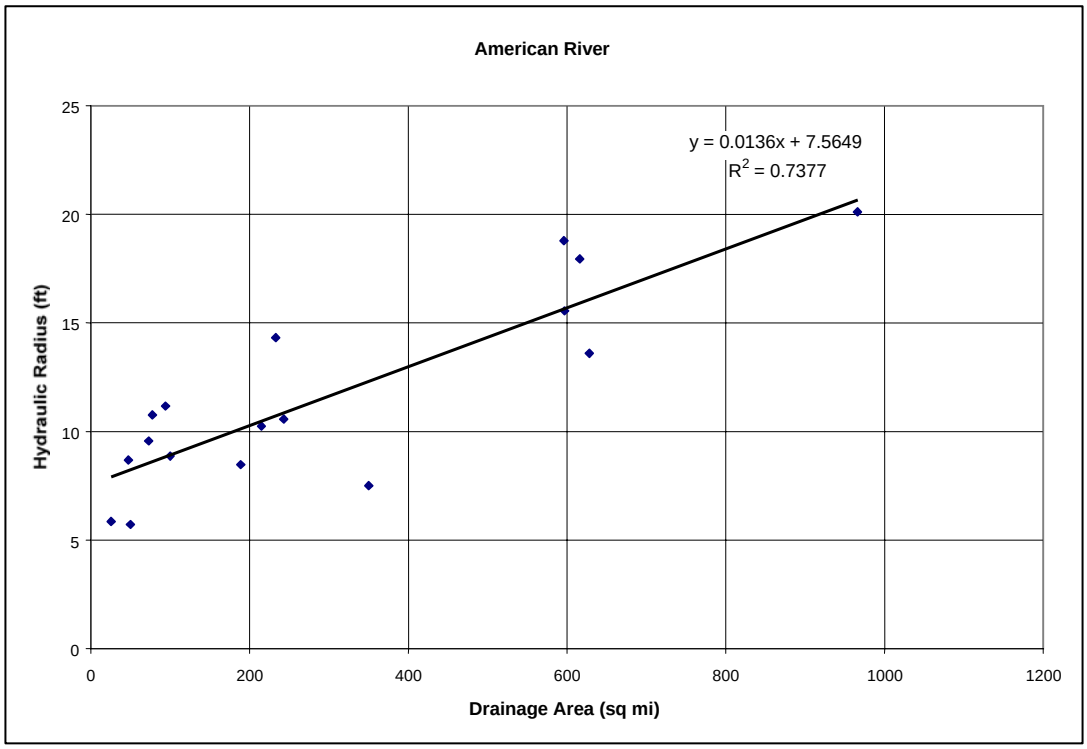


Figure 6-1. Hydraulic Radius vs. Drainage Area for the American River Basin

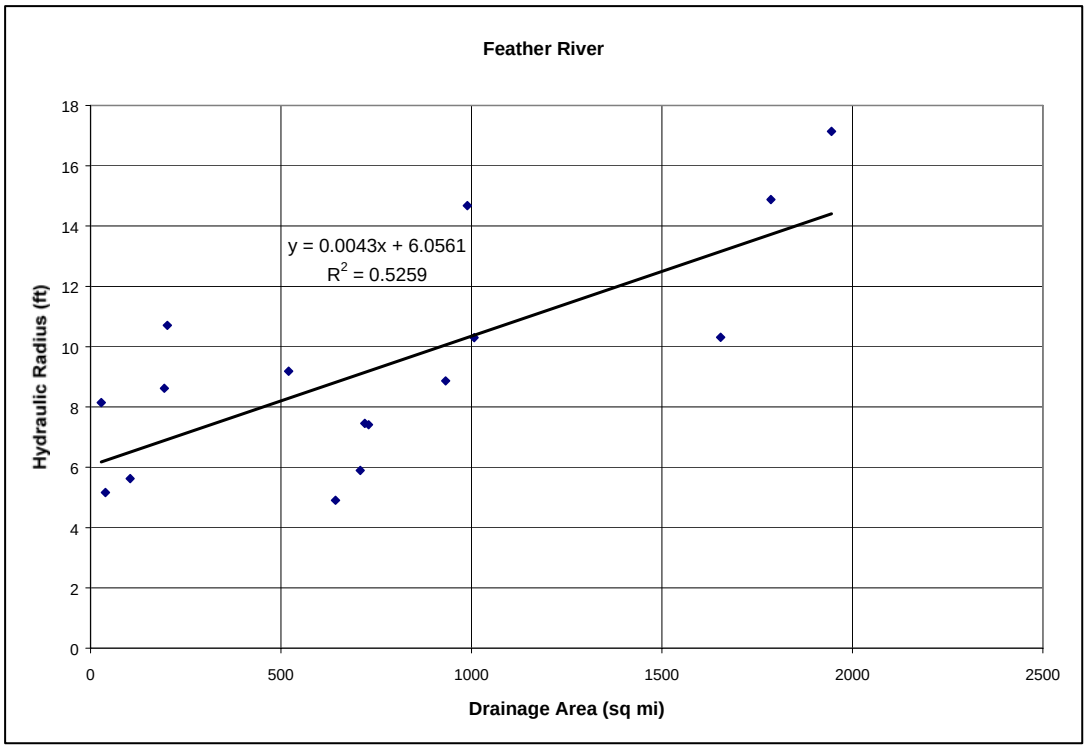


Figure 6-2. Hydraulic Radius vs. Drainage Area for the Feather River Basin

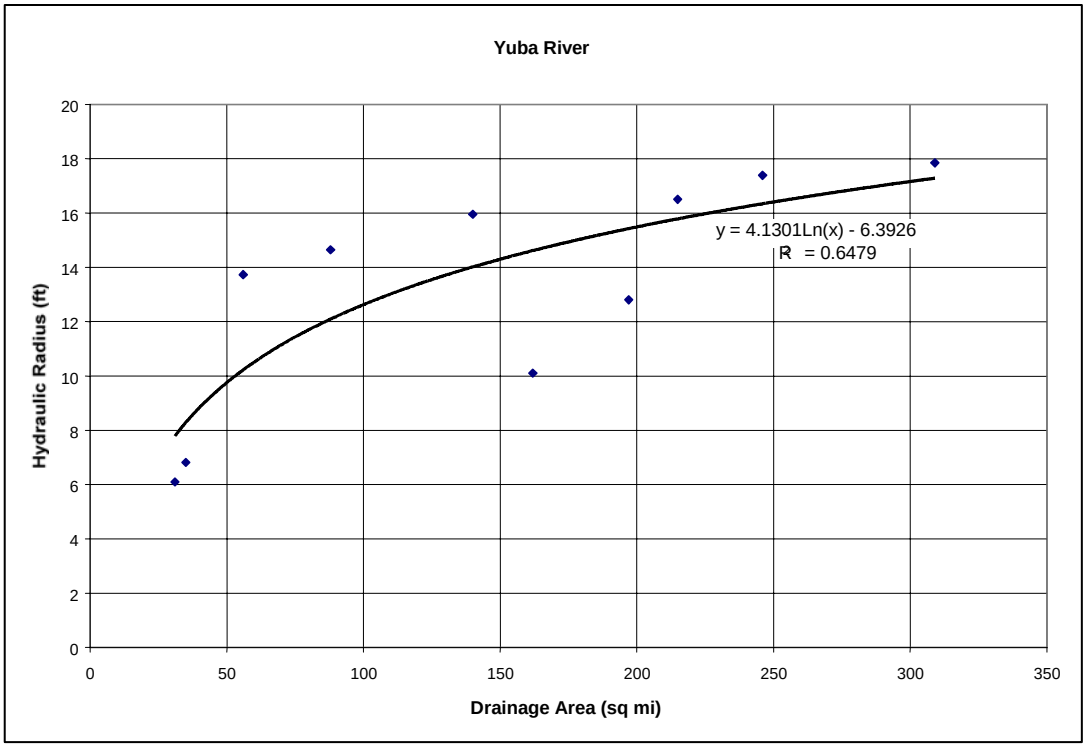


Figure 6-3. Hydraulic Radius vs. Drainage Area for the Yuba River Basin

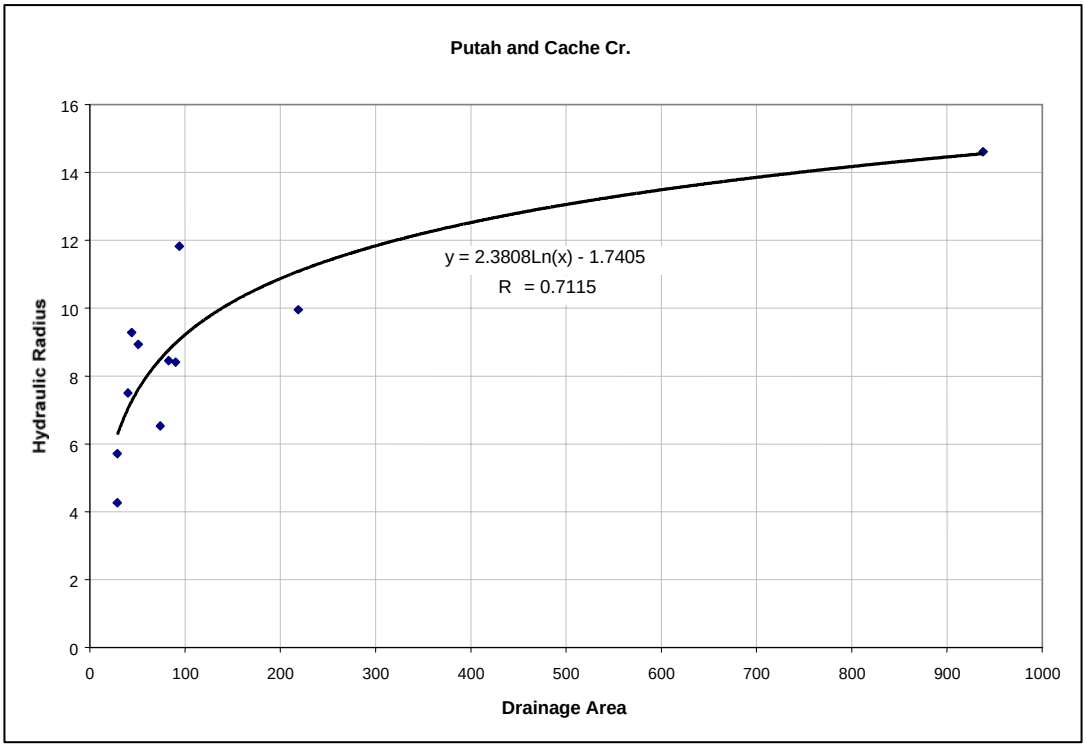


Figure 6-4. Hydraulic Radius vs. Drainage Area for Putah and Cache Creek Basins

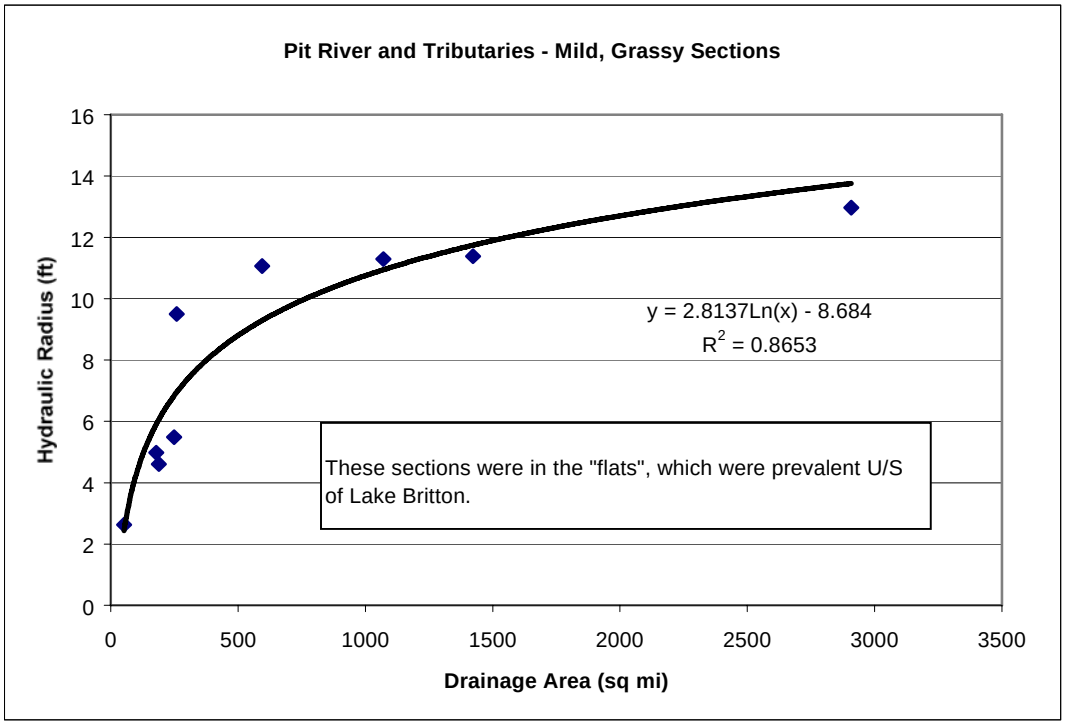


Figure 6-5. Hydraulic Radius vs. Drainage Area for the Upper Sacramento River Basin (Mild, Grassy Sections)

After calculating T_c for several subbasins, a relationship for time of concentration versus a basin factor ($LL_{CA}/S^{1/2}$) was estimated (see Figure 6-6). This relationship was used to provide the initial time of concentration estimates for the parameter optimization process. The parameters needed for the basin factor were taken directly from data created using GeoHMS.

Understanding that some reservations exist about the procedures used to estimate the time of concentration, it is critical to understand that the T_c values calculated are only the *initial* conditions for the HMS optimization program. After the optimization process was completed, regression equations for T_c+R were developed so they could populate the detailed HMS models without calculating a detailed T_c for every subbasin. The regression analysis is discussed in detail in "Section 6.4, Regression Analysis of Clark Unit Hydrograph Parameters".

6.3 Optimizing Runoff Parameters for Gaged Subbasins

Clark unit hydrograph parameters TC and R, initial and constant losses, and baseflow parameters were optimized for the two historical events using the HMS parameter-optimization routines. Because the 1997 flood event was a larger event for most of the basins, it was optimized first and then its results were applied to the 1995 event for the initial runs. The hydrograph parameters were event specific; however, during the weighting of the TC and R coefficients for the two events, the 1997 event received more weight due to its magnitude. The weighting was subjective, with the 1997 TC and R values having slightly more influence on the

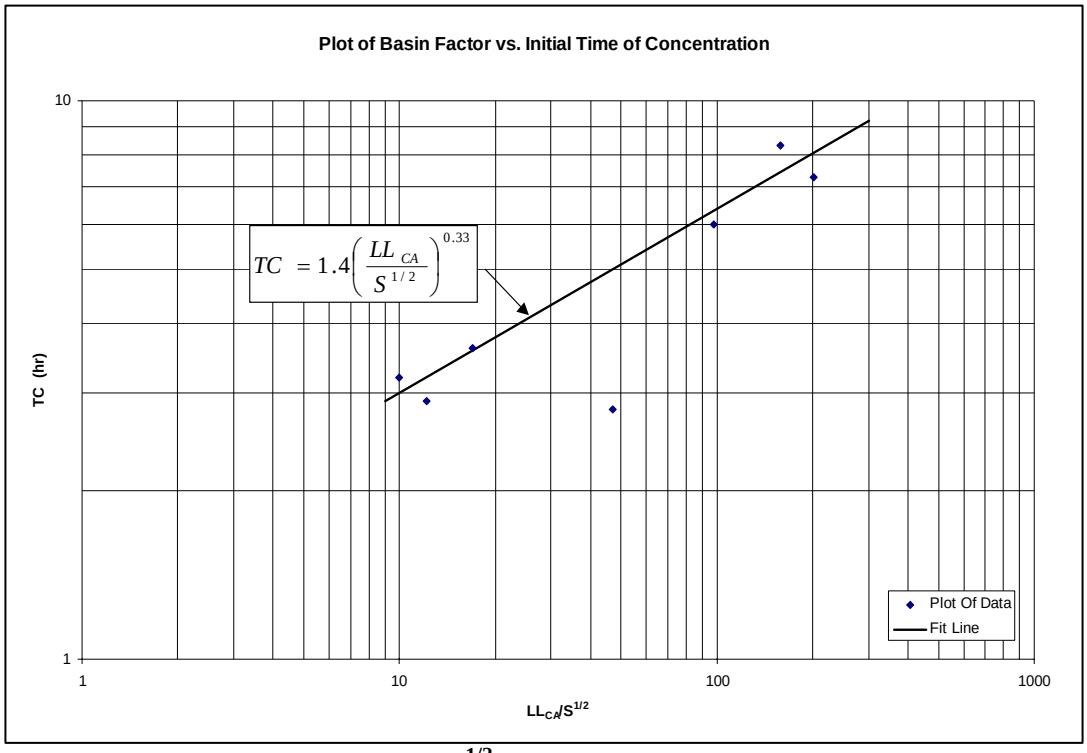


Figure 6-6. Basin Factor ($LL_{CA}/S^{1/2}$) vs. Initial Time of Concentration (TC) Relationship

adopted TC and R values than the 1995 event. Given the size of the study, the number of modeling teams and the number of gaged headwater subbasins, it was important to apply consistent procedures for each of the river basins. The procedures described in this section apply for both the 1997 and 1995 events.

For the 1997 event, each modeling team used "Gridded Precipitation", which included the LWASS from the DSPM for their meteorological model (see Figure 6-7). In order for HMS to run, any missing values were automatically replaced with zeroes. The precipitation and snowmelt process should have ensured that no missing values existed but the appropriate box ("Replace Missing data with zero") was still checked. Additionally, because the data were stored in Universal Coordinated Time (UTC), the modeling teams had to use a time shift of 8 hours to view the data and results in Pacific Standard Time (local California time).

For each of the basins where parameter optimization was to take place, the modeling teams then specified an observed discharge hydrograph for the 1997 event. The observed flood hydrographs were plotted so a starting and ending time for the event could be determined. By plotting the data within HMS, hydrographs could be examined to ensure they were complete and did not have obvious data anomalies. Teams then specified a time window that started a few hours before the ascension limb began and ended where the recession limb flattened out. The time window was specified in the Control Specifications module (see Figure 6-8 for March 1995 event).

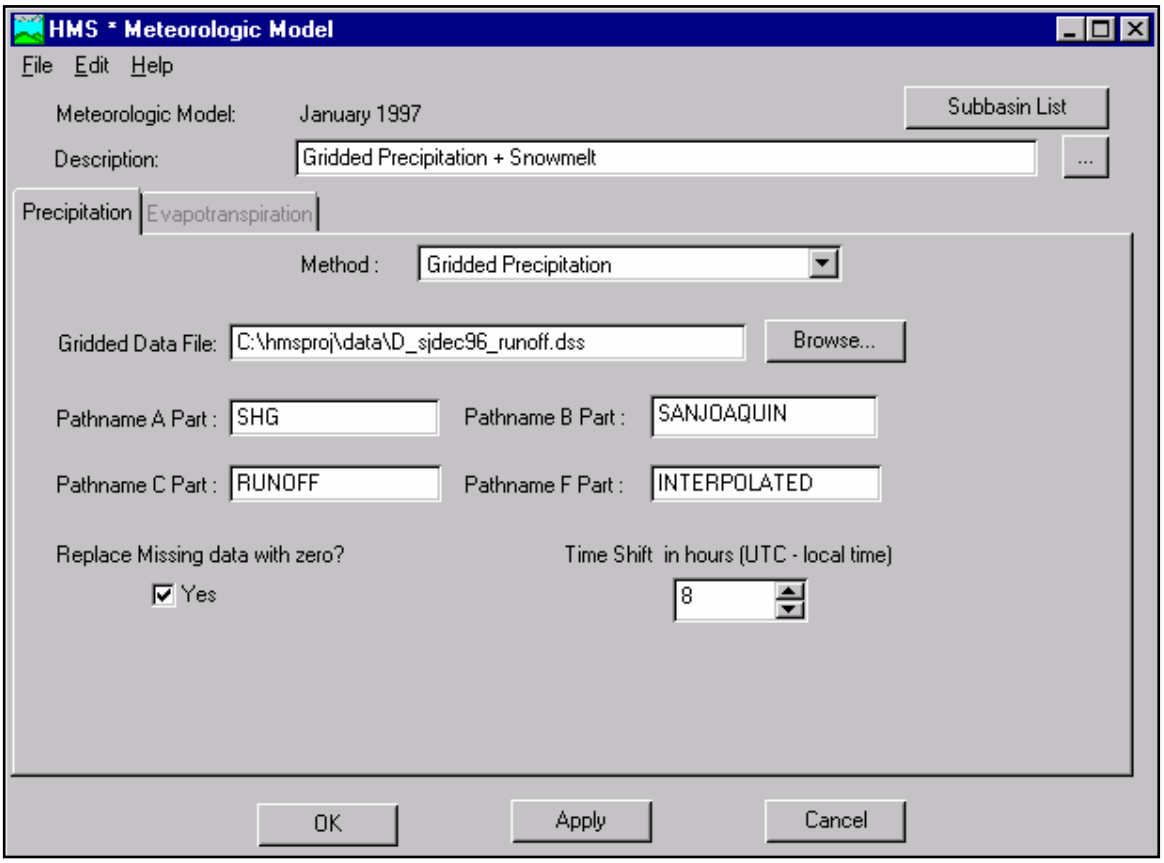


Figure 6-7. HMS Meteorologic Model

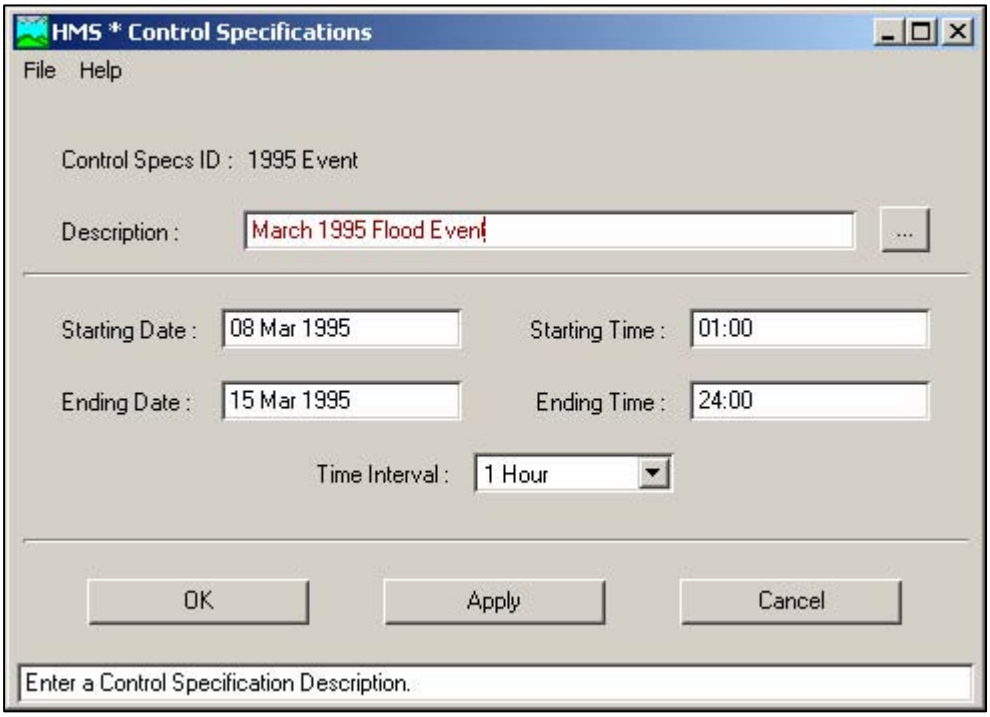


Figure 6-8. HMS Control Specifications - Setup

Initial values for the Clark unit hydrograph parameters, the initial and constant loss, and baseflow were entered into the basin model. Once entered into the basin model, the HMS Optimization Manager automatically selected them as the initial values (see Figure 6-9). The maximum and minimum values listed with the table were default values for each of the parameters. The initial values used by each team were:

1. TC was set equal to the calculated value for T_c as described in "Section 6.2" and R was set equal to 1.5 TC.

2. Initial and constant losses started with 0.5 inches and 0.1 inches/hr, respectively.

3. The initial baseflow recession parameters used were 2 cfs/sq. mi. for the initial flow, 0.8 as the recession ratio, and 0.20 peak ratio for threshold flow.

After executing a run, the computed hydrographs were plotted against the observed hydrographs. These plots included the rainfall/snowmelt excess hyetograph and a detailed depiction of the baseflow (see Figure 6-10). The shape, volume, and timing of the peaks were compared. The parameter optimization process took a number of iterations to find the best combination of parameters that resulted in a good match between the two hydrographs.

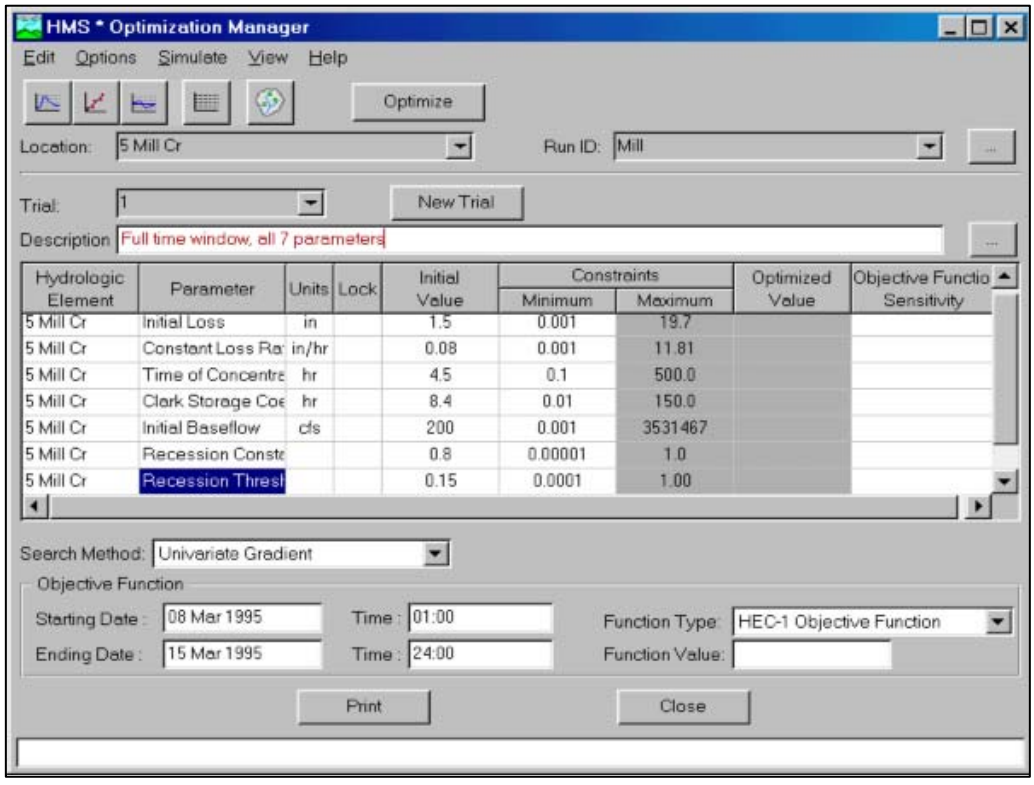


Figure 6-9. HMS Optimization Manager

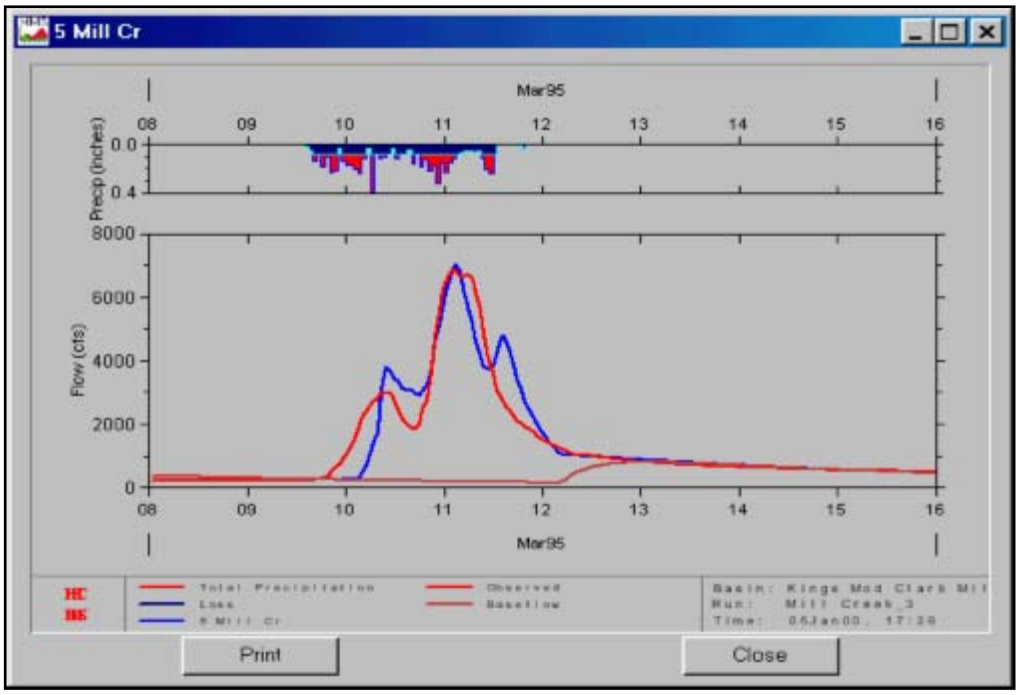


Figure 6-10. Comparison of Observed and HMS Optimized Hydrographs

The iterative optimization trials (see example HMS Runoff Parameter Optimization Trial Results summary in Figure 6-11) used by the modelers are listed below.

- Trial 1. Perform parameter optimizations with a full time window and all 7 parameters.

- Trial 2. Adjust the time window and lock the baseflow parameters. In some cases, the time window was adjusted to the main part of the major runoff hydrograph. This adjustment was performed if there was evidence of more than one peak and the match between the computed and observed hydrograph was not very good due to the time distribution of the rainfall/snowmelt excess. If the computed baseflow from the first trial matched the flow at the start of the flood hydrograph and the baseflow recession, the values were then fixed. Otherwise, another trial was made so the observed and computed baseflows matched.

- Trial 3. With the adjusted time window and locked baseflow, the initial unit hydrograph parameters were revised. If the computed and observed hydrographs matched well, the initial values were set to the optimized values and a final trial run was made. If significant changes in the parameters resulted, another trial was made starting with the optimized parameters from the current trial.

These trials were successful if the goodness-of-fit between the observed and computed hydrographs continued to improve (i.e., continued to reduce the objective function). Acceptable results were transferred to each teams' spreadsheet file for the 1997 event.

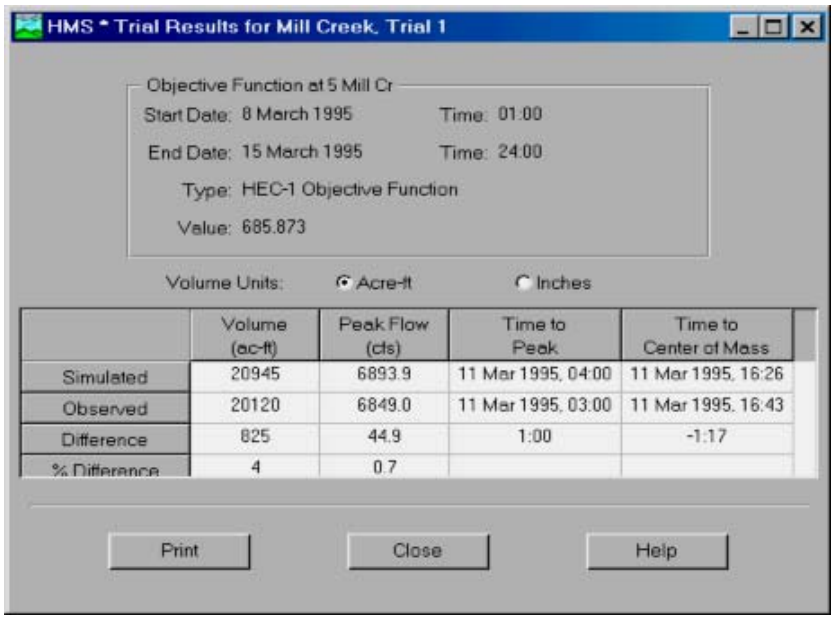


Figure 6-11. HMS Runoff Parameter Optimization Trial Results

When the modeling teams were satisfied with the 1997 event parameters, the parameters were then used for the initial values for the 1995 event. Many of the baseflow and loss parameters were event specific (as expected). However, only one set of values could be used by the subsequent regression analysis; therefore, the following guidance was provided to develop one set of parameters for each subbasin:

1. To determine an adopted value for TC, a weighted average from the parameter optimization results was computed. The weighting process was somewhat subjective with more weight given to the larger flood event. If data were available for only one event and the reconstitution of the observed flood hydrograph was good, the TC value from that flood event was used.

2. To determine an adopted value for R, values of R/(TC+R) for each gaged subbasin and for each event were computed. These values were averaged for each teams' river basin or region, and the resultant average value of R/(TC+R) was used to solve for an adopted R corresponding to the adopted value of TC for each optimized subbasin.

3. Once the unit hydrograph parameters were adopted, each team made a new HMS optimization basin model entitled "Adopted UHG parameters." The adopted unit hydrograph parameters and the other parameters from the final parameter optimization trial were entered. A run was made and its results plotted to see if the hydrograph comparisons were still satisfactory. The results using these adopted parameters represented the final historical flood hydrograph reconstitution.

The unit hydrograph parameters (TC and R) resulting from the runoff parameter optimization analysis were used in a regression analysis to develop estimating equations for unit

hydrograph parameters for ungaged subbasins. The results of each teams' optimized runs are listed in Table 6.1.

6.4 Regression Analysis of Clark Unit Hydrograph Parameters

After the Clark unit hydrograph parameters were estimated at the gaged headwater locations, a multi-linear regression analysis was performed. The objective of the analysis was to develop a relationship between the physical subbasin parameters and TC for the gaged subbasins. This relationship could then be used for estimating the TC value for the ungaged subbasins. In this manner, the modeling teams could populate the ungaged subbasins with the Clark unit hydrograph rainfall/runoff transform method parameters, TC and R, without having to manually develop each parameter.

GeoHMS was used to develop the physical characteristics for the optimized subbasins. The physical characteristics were copied from the watershed and stream characteristic tables (generated in GeoHMS) to an Excel spreadsheet. The physical characteristics evaluated during the regression analysis were:

- Length of longest flow path in subbasin (L)
- Length of flow path from subbasin centroid to subbasin outlet (L_{CA})
- Elevation of subbasin centroid
- Subbasin drainage area (DA)
- Slope along longest flow path (based on elevation at path endpoints) (S)
- Slope along longest flow path (based on points 10% and 85% along stream from subbasin outlet) S_{10-85}
- Basin shape factor (the product of the two flow path lengths, L and L_{CA}, divided by the square root of the subbasin slope, S)

Each of these characteristics and various combinations of them (such as $L/S^{1/2}$ and $LL_{CA)}$ were evaluated for correlation with variations in the adopted TC for the optimization models. The log transform of the data was also tested. Only the parameters having significant correlation were used for the final, adopted relationships. The goal was to develop relationships for specific regions consisting of hydrologically similar areas. The smallest regions possible (that were similar and had sufficient data points) were identified during the regression analysis. An attempt was made during the regression analysis to identify trends based on basin size, location, elevation and other factors. However, no significant trends emerged except those based on hydrologically similar regions.

The results of the regression analysis demonstrated that two predictive equations for TC could be used for the study area. For all of the rivers north of the Merced River (except for the Pit and McCloud Rivers, which flow into Lake Shasta) the equation developed was $TC = 0.68(LL_{CA}/S^{1/2})^{0.46}$. For all other rivers (including the Merced), the equation was $TC = 1.67(LL_{CA}/S^{1/2})^{0.29}$. The adopted predictive equations for each groups' regions were entered into spreadsheets to facilitate the computation of Clark▶ s TC for the ungaged areas. The correlations are shown for each of the equations in Figures 6-12 and 6-13.

Table 6.1 Clark's Unit Hydrograph Parameter Optimization Results

River Basin	Gaged Subbasin Name	Area DA (Sq Mi)	Elev Cent E_C (Ft-NGVD)	Total Flow Length, L (Mi)	Length to Cent, L_{CA} (Mi)	Slope LFP, S (ft/mi)	Basin Shape Factor, $LL_{CA}/S^{1/2}$	Initial TC $1.4(LL_{CA}/S^{1/2})^{.33}$ (Hr)	Initial R 1.5 TC (Hr)	Mar 95 Event TC (Hr)	Mar 95 Event R (Hr)	Dec 96 Event TC (Hr)	Dec 96 Event R (Hr)	**Final Adopted** TC (Hr)	**Final Adopted** R (Hr)	**Final Adopted** R /(TC+R)
Group 1																
Cache Cr	R1120W1110	36.8	2306	16.77	8.65	132.00	12.62	3.2	4.8	2.0	3.4	NA	NA	**2.0**	**3.4**	**0.63**
Cache Cr	R670W610	60.2	2239	17.83	7.95	147.84	11.66	3.1	4.7	NA	NA	2.0	2.0	**2.0**	**2.0**	**0.50**
American	Union Valley HW	83.2	6023	20.95	8.30	211.20	11.96	3.2	4.8	1.2	12.5	2.3	6.4	**1.8**	**9.5**	**0.84**
American	AM36A Pilot Ab SM Ga	11.6	4865	9.31	5.04	190.08	3.40	2.1	3.1	2.4	11.7	1.0	5.5	**1.5**	**7.6**	**0.84**
Yuba	YU2 Slate Cr Hdwtr	49.4	4746	20.06	10.22	174.24	15.52	3.5	8.1	2.3	16.1	NA	NA	**2.3**	**16.1**	**0.88**
Yuba	YUR14 JacksonMeadows	37.4	6905	9.74	5.84	232.32	3.73	2.2	5.0	NA	NA	1.1	4.0	**1.1**	**4.0**	**0.78**
Yuba	YU16 MYU Ab OregonCr	107.4	4207	35.67	16.98	142.56	50.74	5.1	11.9	6.1	30.5	NA	NA	**6.1**	**30.5**	**0.83**
Yuba	YU18 OregonCr Hdwtr	23.2	3903	16.80	8.70	205.92	10.18	3.0	7.0	1.7	17.0	0.8	6.9	**1.1**	**11.7**	**0.91**
Feather	FEO2 Spanish Creek	183.0	3614	24.17	7.32	137.28	15.10	3.4	5.1	3.0	20.0	NA	NA	**3.0**	**20.0**	**0.87**
Sacramento Riv.	Odelta	424.2	3012	52.54	22.09	211.19	79.88	5.9	8.9	4.0	21.5	4.0	13.5	**4.0**	**15.1**	**0.79**
Mokelumne	MF Mok at West Point	68.6	4052	23.51	11.20	211.20	18.12	3.6	5.5	4.5	18.5	4.5	18.5	**4.5**	**18.5**	**0.80**
Mokelumne	MO30 SFK nr West Pt	74.9	5040	26.01	11.50	190.08	21.69	3.9	5.8	3.9	14.0	1.5	7.0	**2.3**	**9.3**	**0.80**
Mokelumne	MO24 Forest Cr	20.8	4783	16.28	7.12	242.88	7.43	2.7	4.1	2.7	14.0	2.0	14.0	**2.2**	**14.0**	**0.86**
Tuolumne	Tuolumne R. TO60	16.0	3032	7.92	3.81	110.88	2.86	2.0	3.0	1.0	6.4	1.0	2.8	**1.0**	**4.0**	**0.80**
Cow Creek	CW2 Cow Creek Opt	425.4	1606	47.90	23.99	137.28	98.08	6.4	9.5	5.0	7.1	NA	NA	**5.0**	**7.1**	**0.59**
Group 2																
Pit River	Burney Creek	87.2	4435	23.17	11.45	230.35	17.49	3.6	5.4	NA	NA	6.1	10.6	**6.1**	**10.6**	**0.63**
McCloud River	OMcCldUS	363.2	3934	46.28	21.26	281.37	58.66	5.4	8.0			8.4	26.1	**8.4**	**26.1**	**0.76**
McCloud River	OMcCloud	613.8	3393	75.88	36.38	171.63	210.71	8.2	12.3	7.1	22.9	7.7	26.5	**7.5**	**25.4**	**0.77**
McCloud River	OMcCldLD	184.5	3614	43.23	19.01	301.25	47.34	5.0	7.5	NA	NA	7.1	29.6	**7.1**	**29.6**	**0.81**
Merced	Merced - Happy Isles Br.	180.3	10227	22.35	9.34	330.53	11.48	3.1	4.7	NA	NA	6.0	18.9	**6.0**	**18.9**	**0.76**
Kings	KI34 NF Bl Balch Ga	56.7	6673	13.88	6.20	432.96	4.14	2.2	3.4	4.5	7.3	2.1	5.8	**2.7**	**6.2**	**0.70**
Kaweah	Marble Fk at Potwisha	51.6	6806	17.83	9.47	675.84	6.49	2.6	6.0	2.1	21.5	2.2	9.0	**2.2**	**12.1**	**0.85**
Kaweah	KA2 MF Nr Potw GA	103.5	4848	21.20	11.05	290.40	13.75	3.3	7.7	2.0	8.4	NG	NG	**2.0**	**8.4**	**0.81**
Kaweah	KA8 EF Nr 3Riv GA	85.8	7706	19.22	8.21	464.64	7.32	2.7	6.3	3.5	11.6	NG	NG	**3.5**	**11.6**	**0.77**
Tule	SF Tule Nr Success	109.5	2520	22.97	11.17	348.48	13.75	3.3	5.0	NG	NG	2.0	12.0	**2.0**	**12.0**	**0.86**
Kern	SF Kern Nr Onyx	529.9	7476	76.06	31.43	110.88	226.99	8.4	12.6	NA	NA	8.1	22.8	**8.1**	**22.8**	**0.74**
Chowchilla	OBuchanan	235.0	1334	41.02	22.78	102.05	92.51	6.2	9.4	5.4	6.3	5.0	7.5	**5.4**	**6.4**	**0.54**
Fresno River	Ooakhurst	33.0	3929	11.66	5.66	390.50	3.34	2.1	3.1	1.8	3.3	3.1	4.5	**3.1**	**4.5**	**0.59**
Fresno River	Ohidden	236.3	2640	44.74	21.64	143.94	80.70	6.0	8.9	4.1	6.9	5.5	6.0	**4.5**	**6.6**	**0.59**
San Joaquin	O11242400	16.7	5981	8.90	4.08	433.28	1.74	1.7	2.5	0.4	3.8	2.1	2.4	**1.6**	**2.8**	**0.64**

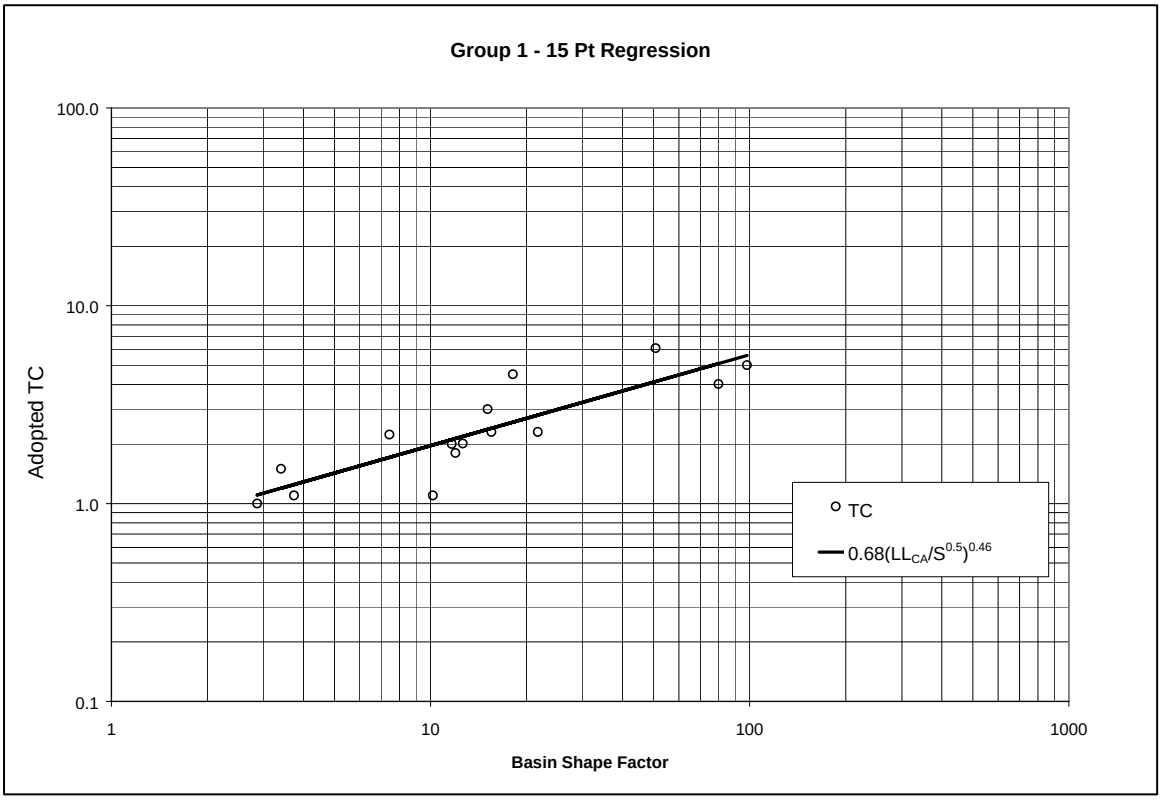


Figure 6-12. Regression Analysis Results for Group 1: Rivers North of Merced River (except for the Pit and McCloud Rivers)

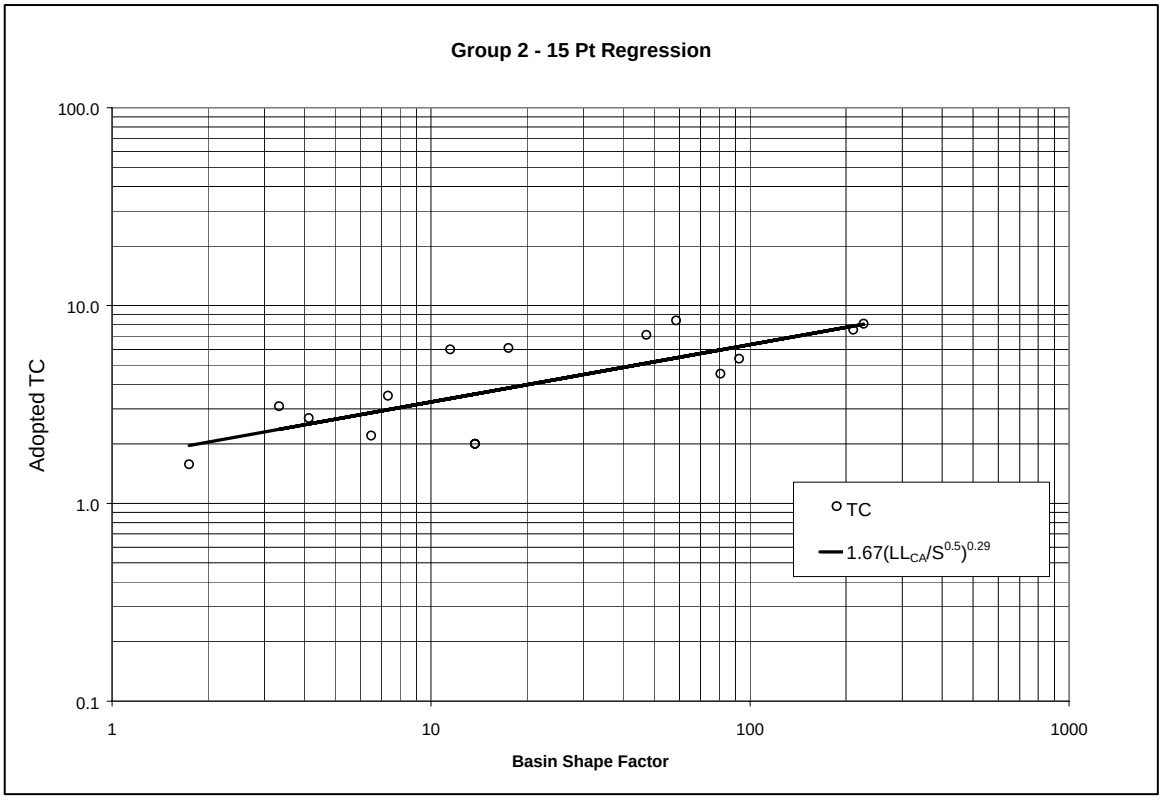


Figure 6-13. Regression Analysis Results for Group 2: Merced River and South of Merced River plus Pit and McCloud Rivers

Clark's linear reservoir storage coefficient, R, was computed for the ungaged subbasins based on an equation relating TC and R. For this study, HEC assumed that the values of R/(TC + R) would be constant for hydrologically similar areas. The value of R/(TC + R) was estimated by taking an average of all of the R/(TC + R) values from the optimization of the gaged subbasins. The relationship for R/(TC+R) was determined to be either 0.6 or 0.8, depending on the particular river. By simplifying the equations, the relationships were converted to R = 1.5TC and R = 4.0TC, respectively. These relationships were then entered into the modeling teams' spreadsheets to facilitate computation of R for their ungaged subbasins. The adopted runoff parameters for the basins are shown in Table 6.2.

Table 6.2 Adopted Runoff Parameters for Basins

Basin	TC*	R /(TC + R)	R	Baseflow Parameters				Loss Parameter Range	
				Initial Rate**		Rec Constant	Rec Ratio	Initial**	Uniform**
				Mar-95	Dec-96				
				(cfs/sq mi)		(Ratio)	(Qp Ratio)	(in)	(in/hr)
Sacramento [1]	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Feather	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Yuba	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Bear	Group 1	0.6	4.0(TC)	3	3	0.8	0.2	1.5-2.5	0.02-0.10
American	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Cosumnes	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Calaveras	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Mokelumne	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Tuolumne	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Stanislaus	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Cow Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Cache Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Putah Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Stony Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Cottonwood Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Big Chico Cr	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Cherokee Canal	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Butte Cr	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Clear Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Red Bank Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Elder Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Thomes Cr	Group 1	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.02-0.10
Battle Cr	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Mid Sac Valley	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Dry Cr at Galt	Group 1	0.8	4.0(TC)	3	5	0.8	0.2	1.5-2.5	0.02-0.10
Kings	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Kaweah	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Tule	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Kern	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Merced	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Chowchilla	Group 2	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Fresno	Group 2	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
San Joaquin	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
Pit [1]	Group 2	0.6	1.5(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25
McCloud [1]	Group 2	0.8	4.0(TC)	2	3	0.8	0.2	1.5-2.5	0.05-0.25

[1] Sacramento, Pit and McCloud Rivers are included within the Upper Sacramento River Basin

* Group 1 Use: $TC = 0.68(LL_{CA}/S^{1/2})^{0.46}$ Group 2 Use: $TC = 1.67(LL_{CA}/S^{1/2})^{0.29}$

** These parameters along with routing parameters can be adjusted during HMS model calibration. Other parameters should not be adjusted without analysis team consensus.

6.5 Routing Reach Parameter Estimates

The Sacramento District requested that HEC use the Muskingum channel routing technique for this study. Therefore, three routing parameters had to be developed for each stream reach: the Muskingum K, reach travel time in hours; X, a peak flow attenuation factor; and N, the number of subreaches within the reach. Again, because of the size of the project, the number of modelers and the number of stream reaches, it was imperative that a consistent approach be used for the routing process.

Initial estimates of the routing parameters were developed for all routing reaches using the following generic equations:

$$K = 1.47L_R/V_W \qquad \text{(Eq 6-10)}$$

Where: K = reach travel time (hours)
L_R = total reach length (miles)
V_W = velocity of the flood wave through the reach (ft/s)
1.47 = unit conversion factor

Assuming the velocity of the flood wave (V_W) is approximately equal to 1.5 V_{AVE} for natural channels, then

$$K = 1.47\ L_R/1.5\ V_{AVE} \qquad \text{(Eq 6-11)}$$

From Manning's equation,

$$V_{AVE} = 1.49/nR^{2/3}S^{1/2} \qquad \text{(Eq 6-12)}$$

For this initial process, HEC assumed that for mountainous stream reaches n = 0.06 and R = 6 and therefore,

$$V_{AVE} = 80S^{1/2} \qquad \text{(Eq 6-13)}$$

The initial Muskingum X values were assumed to be equal to 0.4 for relatively steep, well-defined reaches, where attenuation of the peak flow was not considered significant.

The number of subreaches (N) was set equal to K/)t where N is an integer greater than or equal to 1.0. The relationship between N steps and K must be within the following range:

$$\frac{1}{2(1-X)} \le \frac{K}{N} \le \frac{1}{2X} \quad \text{(for)t = 1hour)}$$

The values of K, X, and N may have been adjusted nominally to satisfy this relationship. If the values for K were less than one hour, which they were in many cases, then the lag routing method was used instead of the Muskingum method. If the modeler used the lag method, their value for K was noted in their routing reach spreadsheet and the lag method was used in the HMS detailed model runs.

Next, the average stream velocities and reach travel times could be calculated with the data that was readily available for each stream reach using GeoHMS. The initial values for K were computed within the spreadsheets and used during the initial detailed model runs. If the timing of the observed and computed peak flows matched, then the modeling teams used the Muskingum K, X, and N values from the calculations above.

If the timing of the observed and computed peak flows did not agree, the modeler had the option of using the channel flow equations that were developed from the regression of the field data instead of the generic procedure described above. The acquisition and development of the field data was described in the *Channel Flow* portion of "Section 6.2, Estimating T_c from Gaged Subbasin Characteristics".

In summary, field estimates of the Manning's "n" values and the top and bottom widths and depths of the streams were taken at a number of key locations throughout the Sacramento River Basin. Representative locations on Putah and Cache Creeks and the American, Feather, Yuba, and Pit Rivers were measured. From the cross-sectional measurements, a hydraulic radius was computed. Using the tools within GeoHMS, drainage areas and representative reach slopes above these locations were easily computed. Relationships of the drainage area versus the hydraulic radius were then estimated through a regression analysis. These relationships were previously shown in Figures 6-1 through 6-5. The purpose of the relationships was so that each modeler could obtain an estimated hydraulic radius, knowing the drainage area at any given point along a stream.

The Manning's "n" values were estimated using Jarrett's equation. Once the Manning's "n" values were calculated, the velocity along any stream could be computed using Manning's equation. To determine a representative velocity for a reach, the drainage area in the middle of the reach was estimated. Placing the values into a spreadsheet and knowing the reach length (already computed by GeoHMS), the travel times for the routed reaches could be calculated as:

$$K = (L / 3600V) \qquad \text{(Eq 6-14)}$$

Where: K = Routing Reach Travel Time (hours)
L = Length of routing reach (feet)
V = Velocity (ft/s)
3600 = unit conversion factor

The equations and values used were then put into the basin's routing reach spreadsheet and later entered into the detailed HMS models. In the vast majority of cases, when the results of the generic routing equation did not provide a good match for the timing of the observed and computed peaks, the river specific equations did.

One other item concerning the routing reaches needs to be addressed. The GeoHMS model is built upon topographic data without the knowledge of exact lake locations. Instead, GeoHMS views the lake surface as a large flat area. Therefore, rather than having routing reaches emptying into a lake and then routing the flow through the lake (which is considered to be a very short amount of time), GeoHMS assumes that individual routing reaches from all of the

upstream subbasins are connected in the lake and then routed through the lake. An example of this limitation is shown in Figure 6-14. Notice that the routing reaches from the upstream subbasins connect within Lake Berryessa (Putah Creek) and are then routed to the lake's outlet.

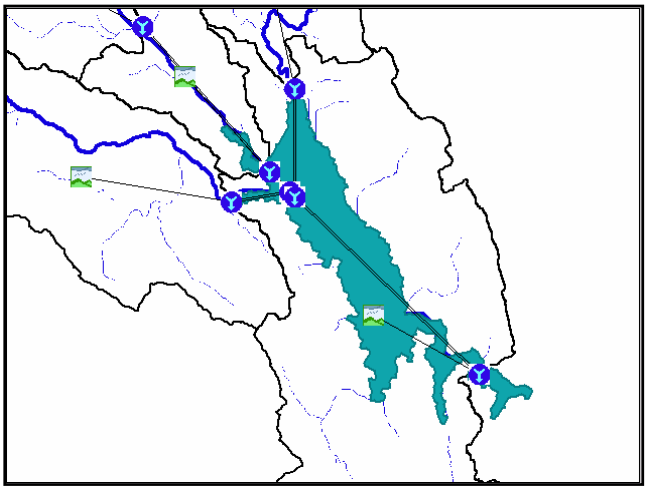


Figure 6-14. Lake Berryessa Routing Reaches Automatically Developed in GeoHMS Model

Using the routing reach and junction editing tools within HMS, this routing reach configuration was manually revised in the detailed HMS model and is properly displayed in Figure 6-15. In this figure, notice that the hydrographs from the upstream subbasins will be routed through the lake with individual routing reaches. Travel times through the lakes and reservoirs are normally assumed to be very small (for this study, they were generally assumed to be less than 30 minutes.) The comparisons of the timing of the hydrographs helped to determine the proper amount of travel time through any specific lake.

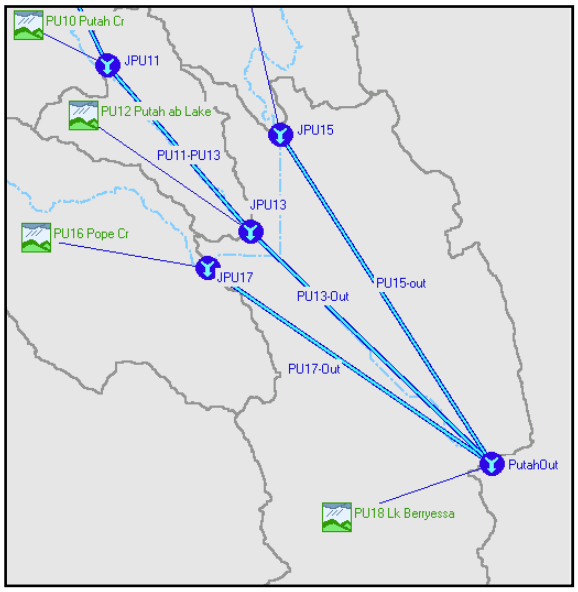


Figure 6-15. Lake Berryessa Routing Reaches Manually Revised in Detailed HMS Model

6.6 Calibration

With the regression analysis complete, TC, R, and the initial routing parameters calculated and stored in a spreadsheet, the calibration of the detailed models could begin. The two historical events, 1-31Mar95 and 1Dec96 to 31Jan97, were used for calibration. As discussed in "Chapter 3, Data Acquisition", it would have been desirable to calibrate to additional events; however, the data were not readily available.

Because the 1997 event was the larger event in most basins, it was calibrated first. Observed and computed hydrographs were plotted and output tables reviewed to ensure that the volumes, peak flows, and hydrograph shapes were consistent for the observed and computed events. Once the modelers were comfortable with their 1997 calibration, they applied the parameters developed for the 1997 event to the 1995 event (except the baseflow values which were event specific). In this manner, they could see if their parameters were truly calibrated. If the 1995 observed and computed hydrographs matched, then the models were considered calibrated. However, if the 1995 observed and computed hydrographs matched poorly, then the parameters were adjusted until one set of parameters created a sufficient match for both the 1997 and 1995 event hydrographs.

Calibrations were compared to the observed hourly (or sometimes daily) hydrographs, whenever available. If daily gages were used, instantaneous peaks were retrieved from the USGS Web site, *ca.water.usgs.gov/data/97/* and *ca.water.usgs.gov/data/95/*, to help the modelers approximate the actual hydrograph. Hydrographs at reservoirs were also used to calibrate the inflows into the reservoirs. For this study, approximately 200 hourly or daily gages and 83 reservoirs were considered as calibration points. The list of the reservoirs with their respective owners, streams and HMS basin model reference are provided in Table 6.3.

Table 6.3 List of Reservoirs (by Owner and Stream)

Owner	Reservoir Name	Stream	HMS Model
Browns Valley Irrigation District	Virginia Ranch (Merle Collins)	Dry Creek	Yuba
Calaveras County Water District	New Spicer Meadows	Highland Creek	Stanislaus
City and County San Francisco	Cherry Valley	Cherry Creek	Tuolumne
City and County San Francisco	Lake Eleanor	Eleanor Creek	Tuolumne
City and County San Francisco	Hetch Hetchy	Tuolumne River	Tuolumne
Corps of Engineers (USACE)	Black Butte	Stony Creek	Stony
Corps of Engineers (USACE)	Buchanan (H. V. Eastman Lake)	Chowchilla River	Chowchilla
Corps of Engineers (USACE)	Englebright	Yuba River	Yuba
Corps of Engineers (USACE)	Hidden (Hensley Lake)	Fresno River	Fresno
Corps of Engineers (USACE)	Isabella	Kern River	Kern
Corps of Engineers (USACE)	New Hogan	Calaveras River	Calaveras
Corps of Engineers (USACE)	Pine Flat	Kings River	Kings
Corps of Engineers (USACE)	Success	Tule River	Tule
Corps of Engineers (USACE)	Terminus (Lake Kaweah)	Kaweah River	Kaweah

... Continued ...

Table 6.3 List of Reservoirs (by Owner and Stream) - *Continued*

Owner	Reservoir Name	Stream	HMS Model
Department of Water Resources	Antelope	Indian Creek	Feather
Department of Water Resources	Frenchman	L. Last Chance Cr	Feather
Department of Water Resources	Grizzly Valley (Lake Davis)	Big Grizzly Creek	Feather
Department of Water Resources	Oroville	Feather River	Feather
East Bay MU District	Pardee	Mokelumne River	Mokelumne
East Bay MU District	Camanche	Mokelumne River	Mokelumne
Georgetown Divide PUD	Stumpy Meadows (Mark Edison)	Pilot Creek	American
Hot Spring Valley Irrigation District	Big Sage	Rattlesnake Creek	Upper Sac
Lyneta Ranches	Tule Lake	Cedar Creek	Upper Sac
Merced Irrigation District	New Exchequer (Lake McClure)	Merced River	Merced
Nevada Irrigation District	Bowman	Canyon Creek	Yuba
Nevada Irrigation District	Jackson Meadows	MFK Yuba River	Yuba
Nevada Irrigation District	Rollins	Bear River	Bear
Nevada Irrigation District	Scotts Flat	Deer Creek	Yuba
Oakdale So. San Joaquin ID	Beardsley	MFK Stanislaus R	Stanislaus
Oakdale So. San Joaquin ID	Donnell	MFK Stanislaus R	Stanislaus
Oakdale So. San Joaquin ID	Tulloch	Stanislaus River	Stanislaus
Oroville Wyandottie ID	Little Grass Valley	SFK Feather River	Feather
Oroville Wyandottie ID	Sly Creek	Lost Creek	Feather
Pacific Gas and Electric Co.	Bucks Storage	Bucks Creek	Feather
Pacific Gas and Electric Co.	Butt Valley	Butt Creek	Feather
Pacific Gas and Electric Co.	Courtright	Helms Creek	Kings
Pacific Gas and Electric Co.	Crane Val Stor (Bass Lake)	NFK San Joaquin R	San Joaquin
Pacific Gas and Electric Co.	Indian Ole (Mountain Meadows)	Hamilton Creek	Feather
Pacific Gas and Electric Co.	Lake Almanor	NFK Feather River	Feather
Pacific Gas and Electric Co.	Lower Bear River	Bear River	Mokelumne
Pacific Gas and Electric Co.	Main Strawberry (Pinecrest)	SFK Stanislaus	Stanislaus
Pacific Gas and Electric Co.	McCloud	McCloud River	Upper Sac
Pacific Gas and Electric Co.	Pit No 3 (Lake Britton)	Pit River	Upper Sac
Pacific Gas and Electric Co.	Pit No 6	Pit River	Upper Sac
Pacific Gas and Electric Co.	Pit No 7	Pit River	Upper Sac
Pacific Gas and Electric Co.	Relief	Summit Creek	Stanislaus
Pacific Gas and Electric Co.	Salt Springs	NFK Mokelumne R	Mokelumne
Pacific Gas and Electric Co.	Wishon	NFK Kings River	Kings
Pacific Gas and Electric Co.	North Fork (Clementine)	NFK American R	American
Pacific Gas and Electric Co.	Lake Fordyce	Fordyce Creek	Yuba
Pacific Gas and Electric Co.	Lake Spaulding	SFK Yuba River	Yuba
Pacific Gas and Electric Co.	Lake Alpine	Silver Creek	Stanislaus
Pacific Gas and Electric Co.	Union	NFK Stanislaus R	Stanislaus
Pacific Gas and Electric Co.	Caples Lake	Silver Fork	American
Pacific Gas and Electric Co.	Silver Lake	Silver Fork	American
Placer County Water Agency	LL Anderson (French Meadows)	MFK American R	American
Placer County Water Agency	Lower Hell Hole	Rubicon River	American

... Continued ...

Table 6.3 List of Reservoirs (by Owner and Stream) - *Continued*

Owner	Reservoir Name	Stream	HMS Model
S Fork Irrigation District	West Valley Res.	SFK Pit River	Upper Sac
Sacramento Municipal Utility District	Ice House	SFK Silver Creek	American
Sacramento Municipal Utility District	Slab Creek	SFK American R	American
Sacramento Municipal Utility District	Union Valley	Silver Creek	American
Sacramento Municipal Utility District	Loon Lake	Gerle Creek	American
South Sutter Water District	Camp Far West	Bear River	Bear
Southern California Edison Co.	Redinger (Big Creek No 7)	San Joaquin River	San Joaquin
Southern California Edison Co.	Florence Lake	SFK San Joaquin R	San Joaquin
Southern California Edison Co.	Huntington Lake 1	Big Creek	San Joaquin
Southern California Edison Co.	Mammoth Pool	San Joaquin River	San Joaquin
Southern California Edison Co.	Shaver Lake	Stevenson Creek	San Joaquin
Southern California Edison Co.	Thomas Edison	Mono Creek	San Joaquin
Turlock Irrigation District	Don Pedro	Tuolumne River	Tuolumne
US Bureau of Reclamation	East Park	Stony Creek	Stony
US Bureau of Reclamation	Folsom	American River	American
US Bureau of Reclamation	Friant (Millerton Lake)	San Joaquin River	San Joaquin
US Bureau of Reclamation	Monticello (Lake Berryessa)	Putah Creek	Putah
US Bureau of Reclamation	New Melones	Stanislaus River	Stanislaus
US Bureau of Reclamation	Shasta	Sacramento River	Upper Sac
US Bureau of Reclamation	Sly Park	Sly Park Creek	Cosumnes
US Bureau of Reclamation	Stony Gorge	Stony Creek	Stony
US Bureau of Reclamation	Whiskeytown	Clear Creek	Clear
US Bureau of Reclamation	Keswick	Sacramento River	MidSac
Yolo County FCWC District	Clear Lake	Cache Creek	Cache
Yolo County FCWC District	Indian Valley	NFK Cache Creek	Cache
Yuba County Water Agency	New Bullards Bar	North Yuba River	Yuba

In the HMS Basin Model, modelers defined the loss rate method, rainfall to runoff transform method, baseflow parameters, routing method, and reservoir information, as appropriate. For the Sacramento and San Joaquin River Basins Comprehensive Study, HEC used the "constant" loss rate method, the ModClark rainfall to runoff transformation, the "recession" baseflow method, and the Muskingum routing method. A summary of the steps that were used for calibration are provided in the following paragraphs.

6.6.1 Losses

Using the adopted parameters (as previously shown in Table 6.2), a recommended range of loss rate values was provided to each of the modeling teams prior to their detailed HMS modeling. The values shown in the adopted parameters table were developed by the regression analysis or represented a range of values commonly used for that river basin during the optimization process. For the initial losses, a range of 1.5 to 2.5 inches was recommended. For the constant losses, a range of 0.02 to 0.10 inches/hour was recommended. The teams adjusted

the event loss rates to help match the observed volumes and peaks. While the modeling teams tried to stay within these ranges, they could and did go outside the ranges if it created a better fit to the observed hydrograph. For example, in an effort to match the volume of the observed hydrograph, the constant loss rate was reduced to 0.001 inches/hour in some cases. Even with this very small loss rate, the volume of some computed hydrographs did not match the observed hydrograph. It appeared to the HEC staff that there wasn't sufficient precipitation or LWASS from the DSPM model to generate the observed volume no matter how small the losses were made. If observed hydrographs were available, the modeler may have used HMS source and sink elements to compensate for the lack of computed runoff. A percent imperviousness value was also used for some subbasins. Typically, lakes or other impervious surfaces, such as rocky areas, were found in these subbasins.

One problem did develop due to the use of constant losses. During an actual event, loss rates would decrease over time as the soil becomes saturated; thus, reducing the soil infiltration capacity. However, the use of the constant loss rate did not represent the actual reduction in infiltration capacity. Loss rates were calibrated to match peak computed flows with peak observed flows; however, this often resulted in either overestimating flow on the rising limb (before the peak) or underestimating flow on the falling limb (after the peak) of the event hydrograph. This limitation in the initial and constant loss rate method was noted and an improvement was recommended for future HMS model development.

6.6.2 Rainfall to Runoff Transform

The ModClark rainfall to runoff transformation process was used since gridded models had been developed. The equations used to compute the TC and R values (developed through the regression analysis) were provided with the adopted parameters table and were placed in the modeling teams' spreadsheets. By having these equations in the spreadsheets, the values for TC and R were automatically calculated. Once calculated in the spreadsheet, the values were placed in the HMS model and were not adjusted.

6.6.3 Baseflow

The adopted parameters table provided the recommended baseflow values. These values were developed by reviewing the baseflow values used during the optimization runs for those river basins. Initial baseflow values ranged from 2 to 5 cfs/sq. mi., depending on which event and which river basin was being calibrated. Recession ratios (which govern the rate at which the baseflow of the computed hydrograph recedes) were initially set to 0.8. The threshold flow ratio (the point on the hydrograph where baseflow replaces overland flow as the source of flow from the subbasin) was set to 0.2. All three of these values were subject to change by the modeling teams so that the shapes of the observed and computed hydrographs matched. In most cases, these values were slightly revised but, for the most part, they were very close to the recommended values as shown in the adopted parameters table.

6.6.4 Routing

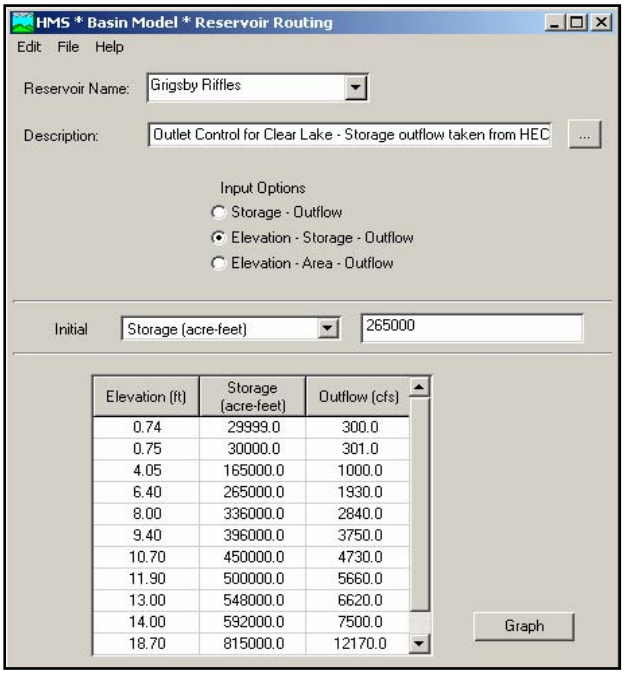
The Muskingum routing reach values were found in each teams' routing reach spreadsheets as discussed in "Section 6.5, Routing Reach Parameter Estimates". The values for K, X, and N were adjusted to match the timing and attenuation of the observed gaged flows.

6.6.5 Reservoir Modeling

At the time of the study, the reservoir modeling capabilities within HMS were limited. Therefore, any reservoir that had detailed operation rules was not modeled by the program. Rather, the basin model was calibrated to the inflows into the reservoir and then the modelers used a "sink" at the reservoir to prevent the upstream flow from proceeding downstream. Next, in place of the upstream flows computed by HMS, a "source" was added to the basin model to route the observed reservoir outflows downstream. By using this technique, a place holder was made for the reservoir, and the correct flows were routed downstream.

If the reservoir had limited gated releases, every attempt was made to model the reservoir and keep it connected to the rest of the model without the use of "sources" and "sinks". Elevation-storage-outflow tables were found in the reservoir data provided by the District. The District obtained reservoir data and plan sheets for all of the reservoirs modeled from the California State Department of Water Resources, Division of Safety of Dams. An example of the reservoir data input into the HMS models is provided in Figure 6-16.

With this information, HMS could then be calibrated at that reservoir outflow gage. The starting or initial storage was used to regulate the initial hydrograph flows.



Elevation (ft)	Storage (acre-feet)	Outflow (cfs)
0.74	29999.0	300.0
0.75	30000.0	301.0
4.05	165000.0	1000.0
6.40	265000.0	1930.0
8.00	336000.0	2840.0
9.40	396000.0	3750.0
10.70	450000.0	4730.0
11.90	500000.0	5660.0
13.00	548000.0	6620.0
14.00	592000.0	7500.0
18.70	815000.0	12170.0

Figure 6-16. Reservoir Data Input for the Grigsby Riffles (Clear Lake Outlet) (Cache Creek HMS Model)

6.6.6 Meteorological Modeling

After the data for the HMS Basin Model were entered, the precipitation and snowmelt data for both events were used to define the HMS Meteorological Models. The Distributed Snow Process Model (DSPM) developed by the USACE's Engineer Research and Development Center's Cold Regions Research and Engineering Laboratory (CRREL) determined the snowmelt in each grid cell for each hour of both events based on snow condition, elevation, temperature, precipitation, and watershed properties. Snowmelt for each cell was determined using the procedures described in the SSARR User Manual (USACE, 1987). Precipitation that fell where there was no snow was simply passed on, unmodified. CRREL took the precipitation/snowmelt data and wrote it to a HEC-DSS gridded database file. This gridded DSS file was specified in the HEC-HMS model as precipitation. HMS read the snowmelt amount for each cell and considered the snowmelt to be the equivalent of gridded rainfall for the subbasin. The HMS model grid-cell definition file was needed to process the snowmelt data with DSPM so that snowmelt was associated with the appropriate grid cells in each subbasin. The precipitation and snowmelt data were not revised during the calibration of the models. However, recommendations for orographic effects on rainfall are discussed in "Chapter 8, Recommendations and Conclusions".

6.6.7 Model Sources and Sinks

HMS source and sink elements were used to introduce and remove flows, respectively, from a basin model. For this modeling effort, sources and sinks were used for several reasons. One reason was to compensate for inadequate runoff as discussed in "Section 6.6.1, Losses". A second reason was to appropriately model reservoir operations as discussed in "Section 6.6.5, Reservoir Modeling". A third reason was to introduce tributary inflows into the valley model. A list of the source and sink elements used in the HMS basin models are shown in Table 6.4. The primary reason for using the sources and sinks is provided along with the basin where they were used.

6.6.8 Model Controls

Finally, the Control Specifications time window was set for each event. Typically, the start and end dates and times for the 1997 event were December 25, 1996, 0100 hours and January 8, 1997, 2400 hours, respectively. The start and end dates and times for the 1995 event were March 8, 1995, 0100 hours and March 15, 1995, 2400 hours. On occasion, these dates and times were changed by the teams to better represent the precipitation, baseflows, and initial and constant loss rates. The dates were based on reviewing the observed hydrographs.

Table 6.4 Listing of HEC-HMS Source and Sink Elements

HEC-HMS Study Basin and Element Name	Source (SRC) or Sink (SNK)	Purpose of Source or Sink		
		Reservoir Operation	Inadequate Runoff	Introduce Inflow
Sacramento Watershed:				
Upper Sacramento River:				
McCloud Gaged Inflow	SRC		Y	
Sacramento Gaged Inf	SRC		Y	
Pit Gaged Inflow	SRC		Y	
Cache Creek:				
IndianVlyOut	SRC	Y		
Sink-1	SNK	Y		
Middle Sacramento River (Valley):				
UpsacIn	SRC			Y
CowCrIn	SRC			Y
BattleCrIn	SRC			Y
RedBankCrIn	SRC			Y
ElderCrIn	SRC			Y
ClearCrInflow	SRC			Y
CottonwoodCrIn	SRC			Y
ThomesCrIn	SRC			Y
KeswickOut	SRC	Y		
Keswick In	SNK	Y		
Feather River:				
Oroville Outflow	SRC	Y		
L Grass V Out	SRC	Y		
L Almanor Out	SRC	Y		
Bucks Lake Outflow	SRC	Y		
Oroville Inflow	SNK	Y		
L Grass V Inflow	SNK	Y		
L Almanor Inflow	SNK	Y		
Bucks Lake Inflow	SNK	Y		
Yuba River:				
Jack Med Out	SRC	Y	Y (97)	
Bowman Out	SRC	Y	Y (97)	
Spaulding Out	SRC	Y	Y (97)	
NB Bar Out	SRC	Y	Y (97)	
Eng Out	SRC	Y	Y (97)	
Jack Med Inf	SNK	Y	Y (97)	
Bowman Inf	SNK	Y	Y (97)	
Spaulding Inf	SNK	Y	Y (97)	
NB Bar Inf	SNK	Y	Y (97)	
Eng Inf	SNK	Y	Y (97)	

... Continued ...

Table 6.4 Listing of HEC-HMS Source and Sink Elements *(Continued)*

HEC-HMS Study Basin and Element Name	Source (SRC) or Sink (SNK)	Purpose of Source or Sink		
		Reservoir Operation	Inadequate Runoff	Introduce Inflow
Sacramento Watershed (Continued):				
Bear River:				
Rollins Res	SRC	Y		
Sink-1	SNK	Y		
American River:				
Fr Med Out	SRC	Y	Y (97)	
Hell Hole Out	SRC	Y	Y (97)	
AM11B NF Out	SRC	Y	Y (97)	
Loon Out	SRC	Y	Y (97)	
Fr Med Inf	SNK	Y	Y (97)	
Hell Hole Inf	SNK	Y	Y (97)	
Am11A NF Dam Inf	SNK	Y	Y (97)	
Loon Inf	SNK	Y	Y (97)	
San Joaquin Watershed:				
Tuolumne River:				
Hetch Hetchy Obs	SRC	Y		
Lk Eleanor Obs	SRC	Y		
Cherry Lk Obs	SRC	Y		
Hetch Hetchy In	SNK	Y		
Sink-1	SNK	Y		
Sink-2	SNK	Y		
Stanislaus River:				
Donnell-Out	SRC	Y		
BRD-Out	SRC	Y		
NML-Out	SRC	Y		
Tulloch-Out	SRC	Y		
Relief-OUT	SRC	Y		
Donnell-In	SNK	Y		
BRD-In	SNK	Y		
NML-In	SNK	Y		
Tulloch-In	SNK	Y		
Relief-IN	SNK	Y		
Mokelumne River:				
SaltSprRes	SRC	Y	Y (97)	
Pardee Reservoir	SRC	Y	Y (97)	
Sink-1	SNK	Y	Y (97)	
Inflow to Pardee	SNK	Y	Y (97)	
Cosumnes River:				
Res Out (Sly Park)	SRC	Y	Y (97)	
Sink-1	SNK	Y	Y (97)	

... Continued ...

Table 6.4 Listing of HEC-HMS Source and Sink Elements *(Continued)*

HEC-HMS Study Basin and Element Name	Source (SRC) or Sink (SNK)	Purpose of Source or Sink		
		Reservoir Operation	Inadequate Runoff	Introduce Inflow
Tulare Lake Bed Watershed				
Kings River:				
KI30A CR Outflow	SRC	Y		
KI32A Wishon Out	SRC	Y		
KI30A CR Inflow	SNK	Y		
KI32A Wishon Inflow	SNK	Y		

6.6.9 Modeling Sequence of Events

Once all the data were entered, the values in the Basin Model were adjusted until a good fit between the observed and computed hydrographs was developed for the 1997 event. An example of a good match is shown in Figure 6-17. While not every calibration was this close, it is representative of the results found by the modeling teams. Next, the 1997 event parameters, except for the baseflow values, were used in the 1995 model to determine if the Basin Model parameters were appropriate for both events. As previously discussed, the basin's parameters were subject to revision until one set of basin parameters created a sufficient match for both events. When there was a sufficient match for both events, the models were determined to be calibrated. For all of the calibration results, see *Appendix D*.

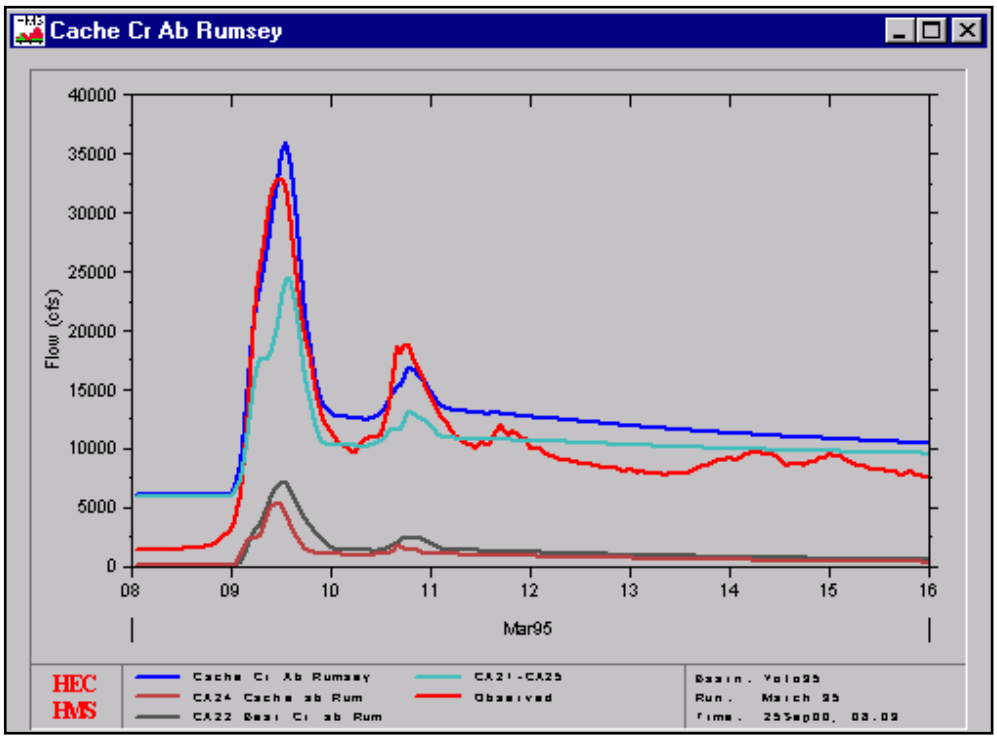


Figure 6-17. Comparison of Observed and Computed Hydrographs

Chapter 7

Results

Thirty-three detailed HMS basin models have been constructed and calibrated for the Sacramento, San Joaquin and Tulare Lake Bed watersheds (as previously shown in Figures 4-2 through 4-4). All but one of these models, the Mid-Sacramento Valley Floor Model, represent headwater/tributary streams to the Sacramento or San Joaquin Rivers or the Tulare Lake Bed.

Of the 27,000 square miles in the Sacramento River Basin, approximately 20,900 square miles were incorporated into one of 19 detailed HMS models, as shown in Table 7.1. The remaining 6,100 square miles, all in the Sacramento Valley floor, were delineated using GeoHMS but were not modeled with HMS. This portion of the valley floor was not modeled because the Sacramento District already had a detailed UNET model built for the valley floor that included local inflows. These local inflows were estimated by the District through the development of synthetic events (USACE and RecBoard, 2000).

District personnel assisted the HEC modelers with the delineation of the Lower-Sacramento Valley floor. After the automated GeoHMS process was completed, modelers from HEC and the District scrutinized the automated delineations and made revisions as appropriate. In the valley floor, revisions were necessary because of levees, canals and other manmade and natural features that were not always present in the DEM and subsequently by GeoHMS. It is important to note that although the 6,100 square miles are not included in detailed HMS models, the fact that the valley floor was delineated using the same DEM and GeoHMS process will allow consistent models to be built at a later date.

Of the 32,000 square miles in the San Joaquin River and Tulare Lake Bed Basins, approximately 12,300 square miles were incorporated into one of 14 detailed HMS models, as shown in Table 7.1. The remaining 20,000 square miles were in the San Joaquin valley floor, the vicinity around the Tulare Lake Bed, or the eastern drainage from the Coast Range (which includes a number of smaller basins). Like the Lower-Sacramento Valley floor, the District already had a UNET model for the San Joaquin Valley floor that included the local inflows estimated by the District. The vicinity around the Tulare Lake Bed was not modeled with HMS because its contribution to the flooding in the San Joaquin River is complicated, and at the time of this study, was not considered a high priority. The eastern side of the Coast Range was not included in detailed HMS modeling because the larger tributary streams were the focus of this study. However, just like the Sacramento Valley floor, the entire 20,000 square miles has been delineated with GeoHMS. Therefore, if the District wants to perform detailed studies in any one of these basins, they can start with the geo-referenced models developed by GeoHMS. Sacramento District personnel assisted with the delineation process.

Table 7.1 Sacramento and San Joaquin/Tulare Lake Bed Detailed HMS Models

HMS Basin Model	Area (Sq. Mi.)	# of Subbasins
Sacramento Watershed:		
Upper Sacramento River	6413	27
Clear Creek	251	4
Cottonwood Creek	945	14
Red Bank Creek	94	1
Elder Creek	140	2
Thomes Creek	297	3
Stony Creek	735	12
Cache Creek	1145	14
Putah Creek	560	9
Cow Creek	425	8
Battle Creek	362	6
Middle Sacramento River (Valley)	1872	22
Big Chico Creek	72	2
Butte Creek	147	5
Cherokee Canal	104	5
Feather River	3665	44
Yuba River	1339	24
Bear River	451	13
American River	1861	57
Sacramento Total:	**20,878**	**272**
San Joaquin Watershed:		
Upper San Joaquin River	1638	36
Fresno River	236	6
Chowchilla River	234	2
Merced River	1036	24
Tuolumne River	1534	40
Stanislaus River	986	34
Calaveras River	378	10
Mokelumne River	625	22
Dry Creek at Galt	325	6
Cosumnes River	726	18
Tulare Lake Bed Watershed:		
Kern River	2055	22
Tule River	392	12
Kaweah River	560	10
Kings River	1541	24
San Joaquin & Tulare Total:	**12,266**	**266**
Sacramento / S.J. / Tulare Total:	**33,144**	**538**

Eighty-three reservoirs were incorporated into the HMS models. The list of reservoirs included all of the major flood control reservoirs and many of the headwater reservoirs that incorporated flood control storage. The District requested that any reservoir of at least 10,000

acre-feet be included in this study. A discussion of the reservoirs and how they were modeled is included in "Section 6.6.5, Reservoir Modeling".

The results of each of the 33 HEC-HMS models are included in *Appendix D* where the following items will be found for each basin:

- GeoHMS Subbasin Delineation Map
- Basin Description and discussion of HMS Modeling Results
- HEC-HMS Model Schematic
- Finalized Basin and River Reach spreadsheet tables displaying the following:
  - Subbasin names
  - GeoHMS parameters (basin area, total flow length, length to centroid, and slope)
  - Basin factor
  - Initial and regression TC and R values
  - River reach names, lengths, and slopes
  - Hydraulic radius (from appropriate regression equation)
  - Manning's "n" value (using Jarrett's equation)
  - Average reach velocities
  - Muskingum K values
  - River reach lag values (if appropriate)

In addition, the following items are provided in *Appendix D* for each basin for each event (March 1995 and December 1996 - January 1997):

- HEC-HMS Summary of Results tables showing:
  - Hydrologic elements
  - Peak Discharges
  - Time of peak discharges
  - Volumes
  - Drainage Areas
- Hydrograph plots at calibration points or other key locations (typically at gages with observed vs. computed hydrographs)
- Loss rates and percent imperviousness
- Baseflow parameters

Examples of HEC-HMS Model Schematics are shown in Figures 7-1 and 7-3 for the American River Basin and the Tuolumne River Basin, respectively. Example plots, for the 1997 event, comparing the observed vs. computed hydrographs are shown in Figures 7-2 and 7-4 for Folsom Lake Inflow (located in the American River Basin) and Don Pedro Lake Inflow (located in the Tuolumne River Basin), respectively.

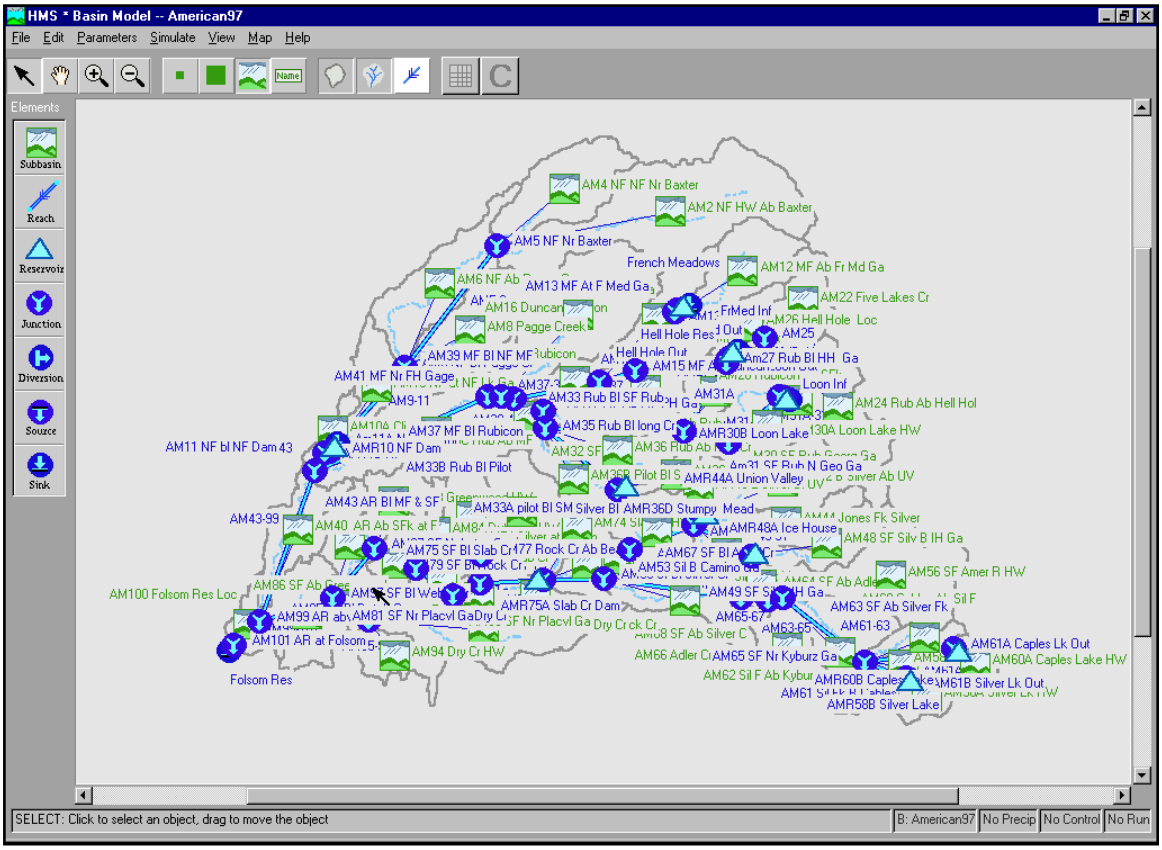


Figure 7-1. American River Basin HEC-HMS Model Schematic

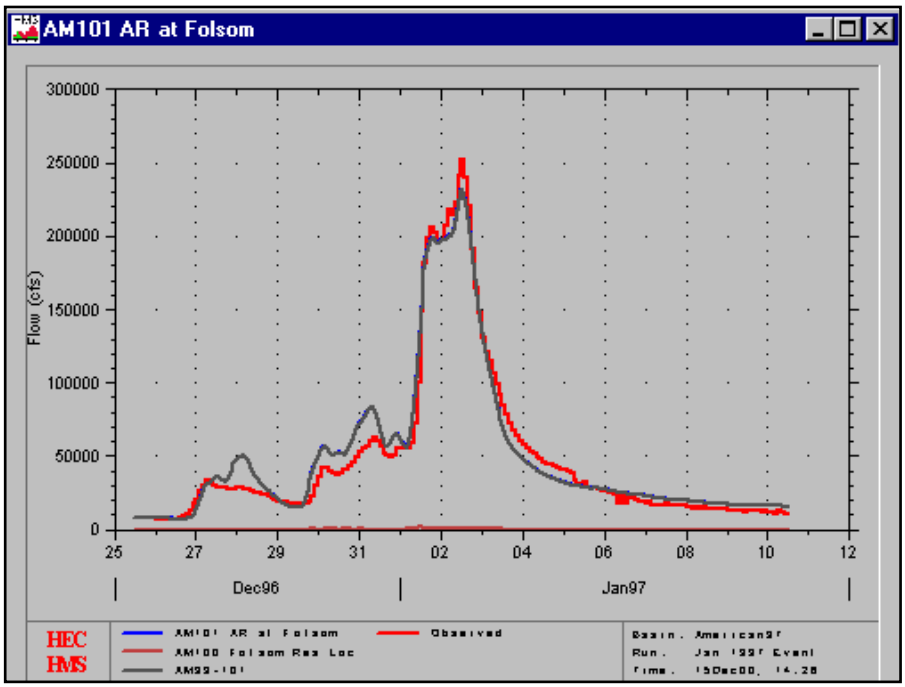


Figure 7-2. Observed vs. Computed Hydrographs (1997 Event): Folsom Lake Inflow (American River Basin)

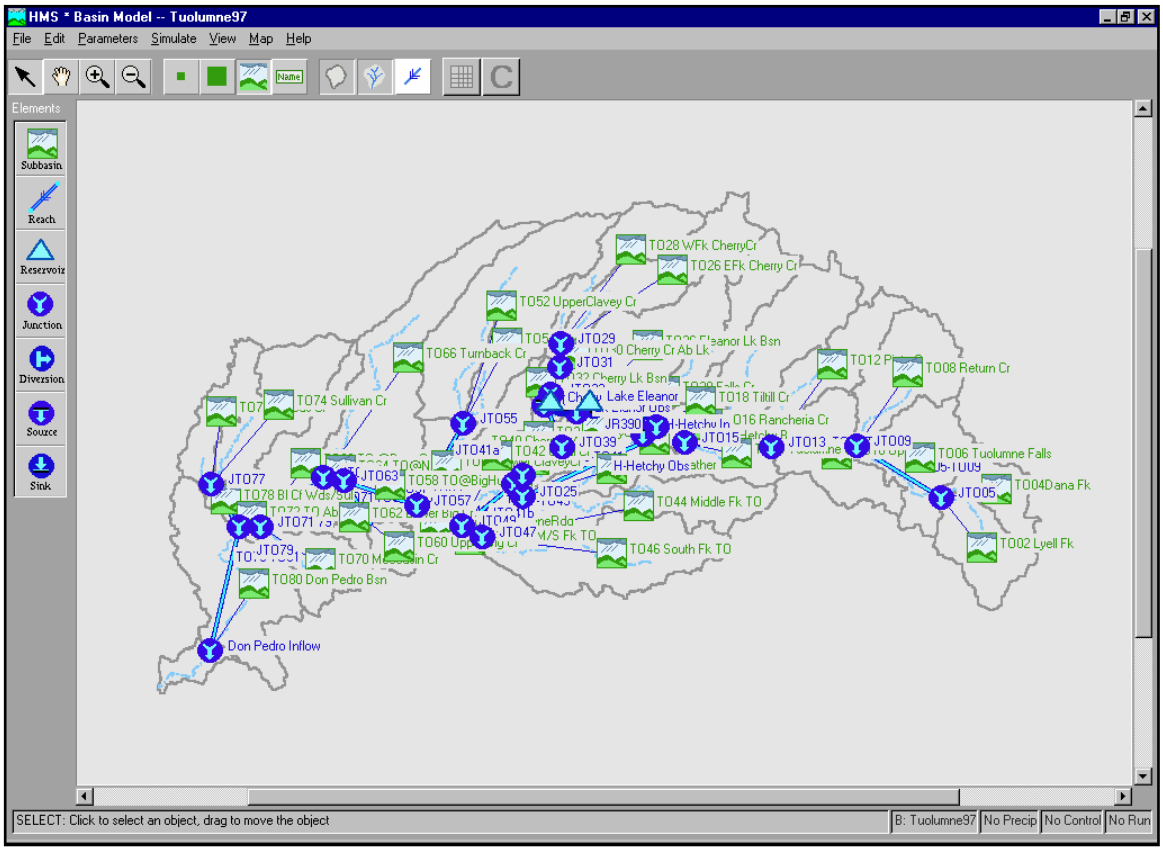


Figure 7-3. Tuolumne River Basin HEC-HMS Model Schematic

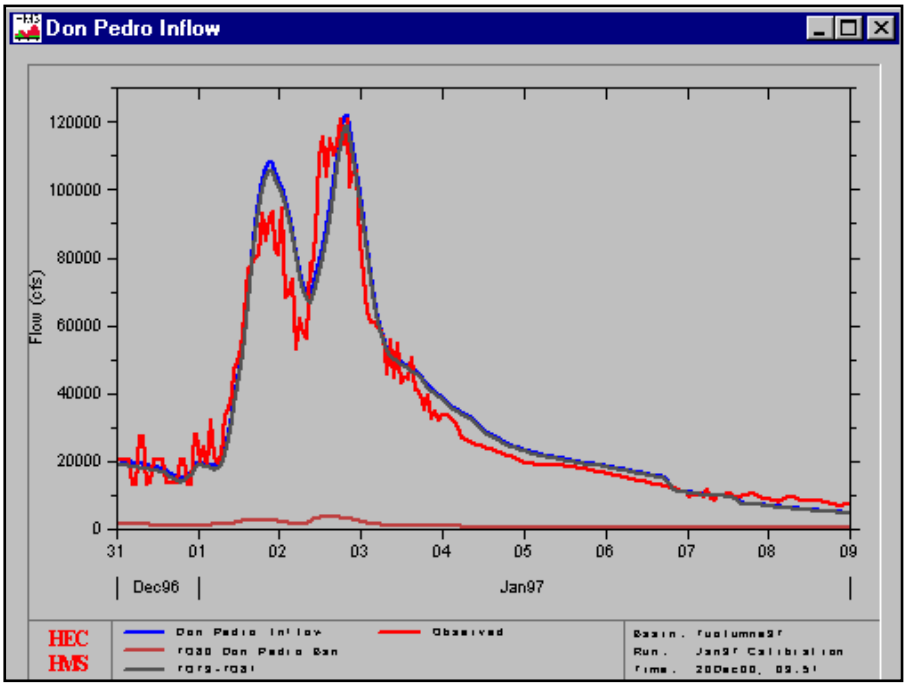


Figure 7-4. Observed vs. Computed Hydrographs (1997 Event): Don Pedro Lake Inflow (Tuolumne River Basin)

Chapter 8

Recommendations and Conclusions

While the HEC modelers were generally pleased with the results from their HMS models, a few recommendations were generated during the study that could improve the modeling results. These recommendations and the study conclusions are provided.

8.1 Recommendations

1. During many hydrologic studies, modelers typically have four or five events to study. For the comprehensive study, only the March 1995 and December 1996 - January 1997 events were used for calibration. HEC understands that if more events are calibrated, the basin parameters are more likely to represent the basin over a wide range of events. It would have been beneficial to have had more events available for calibration. However, as discussed in "Chapter 3, Data Acquisition", HEC decided that only the 1995 and 1997 events would be used because data for other events such as the 1983 and 1986 events was not readily available. While the period-of-record data were collected where ever possible, the 1983 and 1986 event flow data were sparse and not sufficient for an hourly analysis. The collection of pertinent snow information was also a problem. In addition, because so many modeling teams were performing the work, and because there were only 10 months to conduct the study, HEC decided to concentrate efforts on the two events that had readily available records and radar imagery of the snowmelt data.

It is important to note that, for some basins, the contributing factors for the two events studied were sufficiently different that it is difficult to conclude that the basin parameters for the two models should be the same. For example, during the peak of the 1995 event, some basins in the San Joaquin system were actually accumulating snow, rather than experiencing snowmelt. Whereas, the 1996/1997 event experienced significant snowmelt throughout the Sierra Nevada Range. Additionally, the 1996/1997 event was, for some basins, significantly greater than the 1995 event. For example, the 1996/1997 event on the Kern River was over five times larger than the 1995 event. Given that there are different mechanisms creating the flood, can it be said that one set of basin parameters sufficiently models both events? If more events were used for calibration, the HEC modelers might have been more confident in applying the HMS models to additional hydrologic events.

2. Probably the most significant drawback to this modeling effort was the fact that the precipitation used in the models did not always match the actual precipitation. The distribution of precipitation was sufficient for modeling in some cases; in others it was not. The problem with the distribution of rainfall manifested itself in two ways. First, the orographic effects of precipitation were not taken into account in the precipitation models. Second, the inverse distance squared method used to distribute point rainfall to a

grid is accurate only as long as enough point rainfall values exist to capture the spatial variability of the rainfall. As pointed out with some radar data, the point precipitation used to represent the precipitation for this study was in some cases not sufficiently accurate. Two precipitation recommendations are presented:

A. Orographic Effects: Due to the sharp rise in elevation from the valley floor (with an elevation of approximately 35 feet) to the top of the Sierra Nevada range (over 10,000 feet) precipitation is contained in the basin with more precipitation falling in the higher elevations. Unfortunately, in remote higher elevations, few precipitation gages exist. Therefore, point precipitation values at lower elevations were used to represent precipitation at the higher elevations. These extrapolated values did not necessarily represent the precipitation that occurred during the event. Modelers demonstrated this problem by comparing their observed versus computed hydrographs at a number of headwater gages. While the timing and shape of the hydrographs were adequately modeled, the peak and the volume were not. Even with the losses set as low as practical (and sometimes lower), the volume of the computed hydrographs did not match the volume of the observed hydrographs. In Figure 8-1, the peak of the observed hydrograph is approximately 5,000 cfs while the computed is only 3,400 cfs even though the constant losses were set to 0.001 inches/hour. For gages at lower elevations, the volumes of the two hydrographs compared much more favorably. Therefore, if true orographic effects could be more appropriately modeled, the computed volume and peak flow at some of the headwater gages would be more comparable to the observed event. One way to adjust the measured precipitation to account for the orographic effects would be to use published Mean Annual Precipitation (MAP) isohyetal contours to transpose the point precipitation values found in the lower elevations to the higher elevations. For example, if the MAP contour in the higher elevations was 80 inches and the MAP contour in the lower elevation (where the precipitation gage is located) was 40 inches, the hourly precipitation

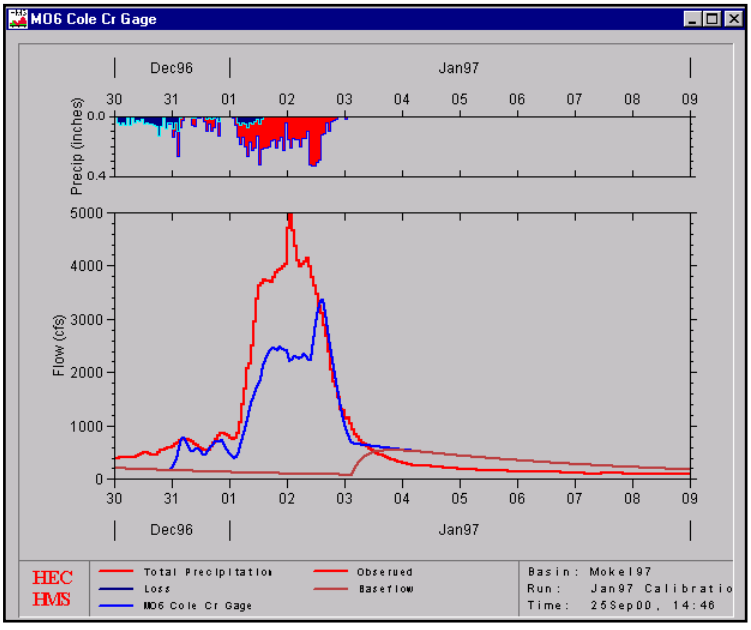


Figure 8-1. Example of Inadequate Precipitation

values in the higher elevations would be doubled to account for the MAP at the higher elevation. Hourly precipitation values between the two MAP contours would be linearly interpolated. This process would need to be included in the GageInterp program.

B. Precipitation Distribution: Approximately 200 hourly point precipitation gages were used to develop the precipitation grid. While at first this number of gages appears adequate, when they are distributed over 60,000 square miles (an average of 300 square miles per gage), it becomes clear that many areas exist where their unique precipitation values were not captured by the gaging network. Due to a number of reasons, precipitation is not distributed as smoothly as the GageInterp program assumes. Rather, pockets, or areas of more intense, higher volume rainfall occur and are not always captured by the point rainfall network. An example of this occurred over two subbasins in the Tuolumne River headwaters. The 1997 observed hydrographs for Lake Eleanor and Cherry Valley Reservoir had peak discharges that were approximately 50 percent greater than the computed peaks. The NEXRAIN radar data (shown in Figure 8-2) provided by Dr. David Curtis of the NEXRAIN Corporation showed that both of these reservoirs received a large volume of rainfall, approximately 15 inches over the 10-day span of December 26, 1996 to January 4, 1997. However, when the precipitation values from the closest precipitation gages around the two reservoirs were reviewed (gages 642, 1915, 1876, and 6174) it was apparent that the subbasins for the two reservoirs did not receive the appropriate amount of precipitation. The option of using radar data rather than the results from the GageInterp program should be included with the HEC-HMS modeling. If radar results could have been used in some areas, a more accurate depiction of the hourly event rainfall could have been made.

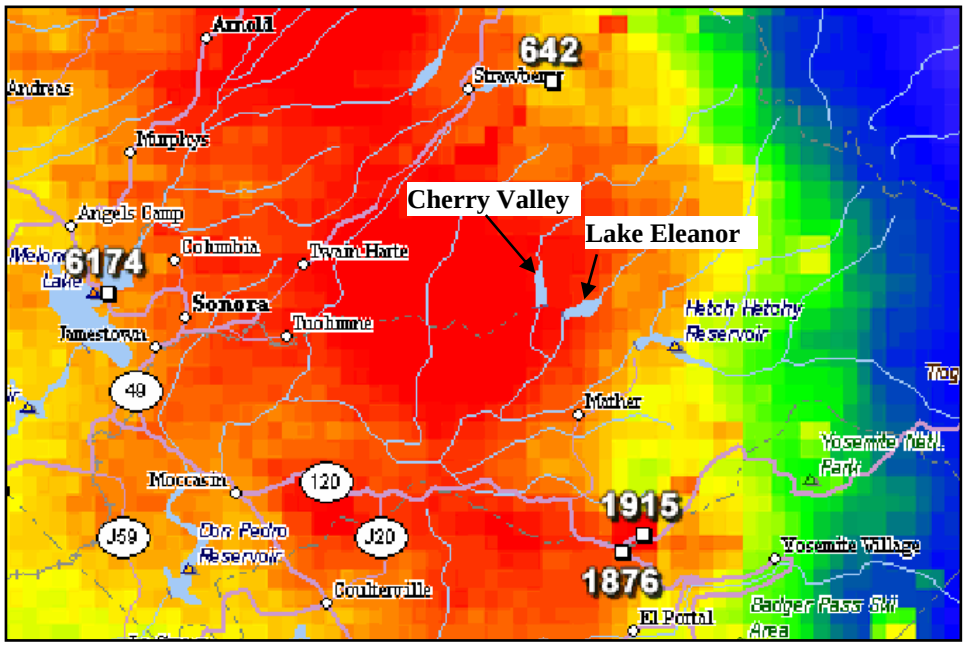


Figure 8-2. Composite of Radar Imagery for December 26, 1996 to January 4, 1997

3. Many of the observed hydrographs had more than one peak flow during the event. Usually, the first peak would be dominant, and then one or more subordinate peak flows would follow. The subordinate peaks would occur due to a later and smaller spike in the precipitation. In this study, HEC used uniform loss rates that, by their very nature, stay constant. These constant loss rates would artificially extract too much of the remaining precipitation, and thus, the modelers were not able to model the second or third peaks. Occasionally, a day or two would pass without any new precipitation, and then a new wave of precipitation would occur. Rather than adjust the constant losses, the program continued to use the constant loss rates, which extracted too much of the precipitation (leaving little, if any, excess for runoff). An example of this situation is shown in Figure 8-3. The recommendation here would be to incorporate decaying loss rates within HEC-HMS to account for the reduction of the loss rates over the duration of the event. However, for this study, HEC calibrated to the dominant peak. Therefore, if the subordinate peak(s) occurred after the dominant peak, the models were calibrated to the dominate peak without changing the event time window. On the other hand, if the dominant peak occurred after one or more subordinate peak(s), then the dominant peak was not matched by the computed hydrograph because the losses were too great. In these situations, the event window was narrowed, if appropriate, to only include the period around the dominant peak to assure that the dominant peak was being modeled appropriately. In summary, computed hydrographs would benefit greatly from implementing continuous soil moisture accounting or exponential decay in loss rates.

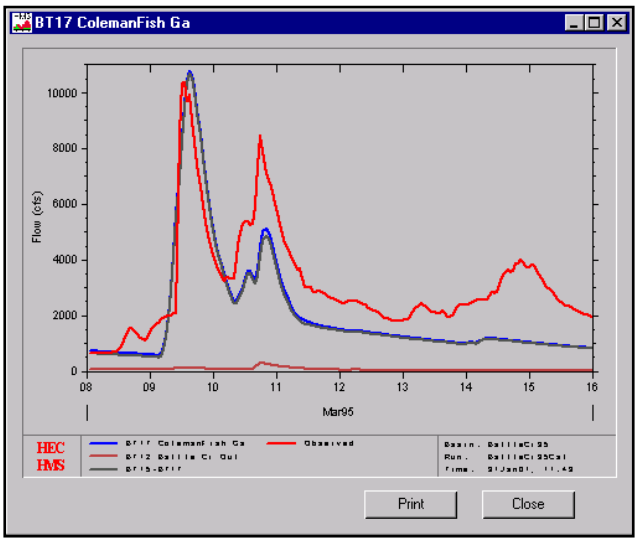


Figure 8-3. Effects of Constant Loss Rates

4. The final recommendation is to add capabilities within HMS so that gated reservoirs could be modeled. The Comprehensive Study has the advantage of having reservoir models constructed for all of its reservoirs. However, for some studies, this will not be the case. Having basic reservoir modeling capabilities in HMS will be a significant benefit. The program would not perform optimization but, rather would have the capacity to run reservoir releases from prescribed gate settings or from a direct time series of outflows so that downstream flows could be calibrated for historic events. As discussed in "Section 6.6.5, Reservoir Modeling", without this feature the modeling teams were not able to calibrate downstream of reservoirs that had gated releases without

using observed flows. Instead, they used tools within HMS to effectively remove the reservoir inflows through a "sink" and then reintroduce the reservoir outflows by using the "source" tool within HMS. While this practice maintained the connectivity of the model, the reservoirs may not have been thoroughly modeled. Additionally, while the technique of using sources and sinks was effective in helping to calibrate the models to the two events, it does not allow the models to be used in a real-time (forecasted) mode or for looking at hypothetical events.

8.2 Conclusions

The hydrologic modeling effort for the Comprehensive Study of the Sacramento River Basin and the San Joaquin River / Tulare Lake Bed Basins was HEC's first large-scale attempt to develop hydrologic models from spatially referenced data sets. Because of the size of the project (approximately 60,000 square miles), the number of modeling teams (11), and the need to work quickly (a 10-month schedule for data acquisition assembly and modeling), the hydrologic models had to be developed efficiently and with consistent methodologies across a very large geographic region. HEC made every effort to keep the modeling process as consistent as practical to ensure consistency of procedures and results, and all modeling steps have been thoroughly documented in this report.

The ability to define subbasins and routing reaches interactively based on terrain models allowed the hydrologic engineers to work quickly. The ability to compare their intermediate results with existing maps increased their confidence in the validity of their model components. GIS tools, such as GeoHMS, allowed the modelers to view and manipulate the data, and calculate subbasin characteristics directly from their terrain models. Physical subbasin characteristics were stored in spreadsheets for quick review and for subsequent calculations. Runoff parameter optimization and regression analyses were necessary to complete the regional analysis. The results of the regression analysis allowed the modelers to populate their ungaged subbasins.

New technology was used throughout the study. From the development of a singular DEM for the entire project, to the use of HEC-GeoHMS and CRREL's Distributed Snowmelt Process Model, HEC incorporated new technology where practical. Based on the performance of this study, it is clear that these tools and others such as HEC-HMS were the correct tools to use for this study. The modeling process, as written in this report, is recommended for future regional studies. This project has provided valuable testing for the GeoHMS extension and HMS, allowing their developers to discover and repair flaws that were not apparent in small sample projects, but became evident on a project this large.

In addition to the HMS models, a comprehensive set of hydrologic data was developed for this project. Period-of-record gaged time series data were provided by many public and private entities. These data will be extremely useful for other hydrologic and hydraulic studies throughout the Sacramento River Basin and the San Joaquin River / Tulare Lake Bed Basins. All hydrologic and modeling data has been provided to the Water Management Section of the Sacramento District.

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Appendix A

Data Acquisition Scope of Work and Data Collection Requirements

Appendix A

Data Acquisition Scope of Work and Data Collection Requirements

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SCOPE OF WORK

SUBJECT: Phase II - Sacramento and San Joaquin Rivers Comprehensive Study, Precipitation, Streamflow and Stream Stage Data Acquisition.

Description: The Hydrologic Engineering Center (CEIWR-HEC) is supporting the Sacramento District (CESPK) in the development of a number of models for Phase II of the Sacramento and San Joaquin River Basins Comprehensive Study. The objectives of Phase II are to enhance the models developed under Phase I and to develop a comprehensive hydrologic model for the Sacramento and San Joaquin River Basins. Models developed under Phase I were the HEC-5 reservoir systems model, the Flood Impact Analysis model, and the Flood Control Optimization model. The models were used to study the operations of Corps' projects and to evaluate flood damages for the 1995 and 1997 flood events (March 8-22, 1995 and December 26, 1996 through January 10, 1997, respectively).

Under Phase II, the Corps' Hydrologic Modeling System, HEC-HMS, will also be used to develop the hydrology for the entire Sacramento and San Joaquin River basins. The hydrology developed with HEC-HMS will be used by some of the other models for Phase II. However, before the HEC-HMS modeling can begin, there is an immediate need for the collection and assembly of data necessary to run the model.

The purpose of this Task Order, therefore, is the collection, assembly, and validation of the data necessary to run the HEC-HMS model. A detailed description of the requested data is provided as is the format that the data is to be displayed and submitted to HEC.

Task, Data Acquisition, Assembly and Validation: Under this task, the Contractor is expected to collect, assemble into specified formats, and validate the data necessary to operate the HEC-HMS models. This data includes the rainfall, snow pack, streamflow and stream stage data for the entire Sacramento and San Joaquin River watersheds. The initial hourly and daily data for the entire length of record shall be obtained at every gage where it is in a readily available electronic format. The initial daily data for the entire length of record shall also be obtained if it is in a readily available paper format. However, only the data for the event time periods specified below shall be "cleaned-up" *and* have their missing values filled-in. The event data shall be collected in paper and electronic format and the entire event placed into the specified HEC-DSS format. Any period of record data acquired by electronic format shall be placed into HEC-DSS. The initial data for the specific events shall be assessed and rated either excellent, good, fair, or poor. "Excellent" data means that there is little or none missing data. "Good" means that some missing data exists but overall the data are complete. "Fair" means the majority of the data are present and "poor" means that most or virtually all of the data are missing and the gage records are not worth keeping.

The event time period for the Phase II study needs to be long enough so that the antecedent conditions and the recession limb of the hydrographs are appropriately represented. Therefore, the dates for the event data collection have been expanded over those used during Phase I. The dates for data collection for the two flood events are March 1-31, 1995 and December 1, 1996

through January 31, 1997. The events shall begin at hour 00:00 and end at hour 24:00 for the dates specified above. The Contractor will not be required to incorporate any requested data not received within 30 calendar days of award of this task order. All requested data received beyond this time shall be identified and turned over to the Government.

Rainfall: Rainfall and temperature data shall include hourly and daily rainfall data for the time periods specified above. Temperature data shall also be collected where temperature readings accompany the rainfall data. To describe the data, the Contractor shall include the items listed in the metadata table, Table A-1. Rainfall data shall be stored in a HEC-DSS file format. In addition to the metadata information, the items listed below shall be included in the Contractor's report.

1. Quality of Data (Excellent, Good, Fair, Poor)

2. 1995 and 1997 Events using Phase I dates
   A. Total Precipitation
   B. Maximum 24-hour Value and Beginning Date/Time
   C. Maximum 6-hour Value and Beginning Date/Time
   D. Maximum 3-hour Value and Beginning Date/Time
   E. Maximum 1-hour Value and Beginning Date/Time

Snow Pack: Snow pack data shall include the following: ambient temperature, precipitation, snow water equivalents from continuous recorders, and depth and water equivalents from monthly snow courses for the time periods specified above. To describe the data, the Contractor shall include the items listed in the metadata table, Table A-1. In addition to the metadata information, the items listed below shall also be included in the Contractor's report

1. Quality of Data (Excellent, Good, Fair, Poor)

2. Snow Course data for the1995 and 1997 Events using Phase II dates

Streamgage & Reservoir (flow and stage): Hourly and daily streamflow and stage data shall be collected for the time periods specified above. The Contractor shall include the items listed in the metadata table, Table A-1. The time series data shall be provided in HEC-DSS format. In addition to the metadata information, the items listed below shall also be included in the Contractor's report.

1. Published Physical Data
   A. Drainage Area
   B. Stream Length
   C. Stream Slope
   D. Stream Station

2. Quality of Data (Excellent, Good, Fair, Poor & USGS Rating if available)

3. Information as Available
   A. Peak discharge
   B. Time Interval
   C. Warning Stage
   D. Flood Stage
   E. Danger Stage

4. 1995 and 1997 Events
   A. Dates
   B. Peak Stage
   C. Peak Discharge
   D. Runoff Volume
   E. Snow Pack - Average Above gage (none, light, medium, heavy)

HEC Deliverable:

HEC will provide to the Contractor a list of required stream and precipitation gages. This list may be incomplete although it is currently considered to be an all-inclusive list of the readily available gages. The Contractor is requested to identify any additional readily available data he may encounter. It is anticipated that a number of the gages on this list will not be used because the data are missing or the gage did not exist during the event periods. However, if the Contractor recommends deleting any gage, they must provide justification for not including that particular gage. All data previously acquired for Phase I of this study and from other pertinent studies will also be made available to the Contractor. The final Phase I flow and stage data has already been revised and therefore should be very clean. It includes the gaging stations in the Sacramento and San Joaquin valleys. HEC will provide detailed specifications as to how data should be collected, assembled and validated (see Sections A.1 through A.4). Finally, HEC will provide HEC-DSS support.

Schedule of Deliverables:

The Contractor shall supply the Sacramento watershed initial data requested above in the formats described in the attached specifications to HEC no later than 45 calendar days from the award of the Task Order. They shall supply the San Joaquin watershed initial data no later than 60 calendar days after the award of the Task Order. The Contractor shall collect and provide hard copies of all plots for the initial data and the collection of plots should be placed in a bound document. HEC will review the initial data for each watershed and supply comments to the Contractor within 14 calendar days after receipt of that watershed's data. The Contractor shall provide two representatives (a Principal/Senior Project Manager/Senior Project Engineer and a Senior Engineer) to attend two, one-day (which includes time for preparation and documentation) meetings, one for each watershed. The meetings will be held at the HEC office in Davis, CA between HEC, the District and the Contractor during HEC's 14 day review

windows. Initial data, missing data and the proper recourse for filling in missing data will be discussed. Missing data shall be filled-in using the procedures in HEC-DSS Math. The Contractor, District and HEC will jointly specify the stations to be used, corrected or updated for the two events. No more than 50 percent of each type of gage shall be used in the calibration analysis by HEC.

The Contractor is to incorporate HEC's comments and make any necessary corrections to the gaged data in the Sacramento watershed within 30 calendar days of receiving HEC's comments. The Sacramento watershed shall be completed first so the modeling can begin. The gages within the San Joaquin watershed shall be completed within 45 calendar days of receiving HEC's comments. The Contractor shall collect and provide hard copies of all plots and tables for the data and the collection of plots and tables shall be placed in a bound document. All data shall be supplied in the formats described in the attached specifications.

Period of Service:

The overall period of services to complete all requirements of the scope of work shall be 119 calendar days.

Cautionary Note:

The Contractor is cautioned to take no guidance from any source during the course of this work which deviates from the requirements stated in this Scope of Work unless directed by the Contracting Officer. The Contractor shall immediately notify the USACE technical manager of any guidance received that is not directed by the Contracting Officer.

_____

Director, Hydrologic Engineering Center

A.1 Requirements for Data Collection Documentation

1. The following information will be provided:

   - Initial ➢ The initial data as collected will be provided. Initial data are those data corresponding to the list of gages attached to this Task Order and any other gages the Contractor may find. Initial data is the data as it appears in the referenced storage facilities. Tables and plots of the initial data will also be provided so trends, missing data and other anomalies can be reviewed.

   - Transitional ➢ Transitional forms of the data which illustrate how the data was converted from its initial form to HEC-DSS will be provided. For example: text files used as input to DSS utilities.

   - Observed/estimated HEC-DSS file ➢ DSS file which contains observed/estimated values (estimated refers to flow estimated from stage) and missing values.

   - Full HEC-DSS file - DSS file which contains observed/estimated and filled-in values. Tables and plots of the completed data will be provided. The files referred to in the third and fourth bullets are virtually the same except the full HEC-DSS file (bullet four) replaces the missing values with filled-in values.

2. Descriptions of how missing data is filled-in will be provided. The utilities within HEC-DSSMATH will be used to complete any missing data. If another method is recommended by the Contractor, it must be approved by HEC prior to its use. Any approved macros or other computer applications used to convert the data from its initial form to DSS will be provided to HEC.

3. All computer files will be provided on CD-ROM.

A.2 Requirements for Collecting and Delivering Observed PRECIPITATION Data for Subbasin Runoff Modeling

1. All known precipitation data should be provided in a single HEC-DSS file. The data type for all records shall be PER-CUM. The original DSS file will not contain filled-in values (missing data replaced with estimated values).

2. Event data is to be plotted as precipitation mass curves so that missing data and other anomalies may be observed. After review by HEC, a second HEC-DSS file will be developed which will include the filled-in values if it is deemed appropriate. Utilities within HEC-DSS Math are to be used to replace missing values. If the Contractor recommends another method, it must be approved by HEC prior to its use.

3. Rainfall values shall be provided as incremental values for a time interval. The interval shall be 1-hour and daily. The incremental depth for a time interval shall be posted at the end of the interval over which it fell.

4. Pathnames assigned to the records in the HEC-DSS file will conform to the following rules:

- A-part shall be a basin name, watershed, or river name, etc.
- B-part shall be the unique name or identifier of the precipitation gage.
- C-part shall be PRECIP-INC to indicate that the data are incremental precipitation.
- D-part shall be the starting date of the data block.
- E-part shall be the time interval (e.g., 1HOUR, 1DAY)
- F-part shall be a data qualifying descriptor (e.g. OBS, OBS-FILLED IN, OBS-ESTIMATED).

A pathname data dictionary will be developed by the Contractor as a catalog describing the pathname parts.

5. All irregular-interval time series data (for example, rainfall observations from an ALERT gage) shall be converted to regular-interval time series data. The procedure for converting the data from irregular to regular interval shall be consistent with that used by the algorithms included in the DSSMATH functions TSNAP or TTSR. If DSSMATH is not used, you must provide evidence that your method provides the same regular-interval series as the DSSMATH function.

One method would be:

For cumulative irregular-interval data use the TSNAP function with the following parameters: DT= <*to be specified*>; TOFF= <to be specified> [Note: TFORWARD is generally specified as 10 x DT or 24 hours, whichever is less]; TBACK = 0MIN; TFORWARD = 0MIN.

For incremental irregular-interval data use the TTSR function with the parameters TOFF=0MIN, FUNCT=ACC, TREAT=<to be specified> [Note: TREAT is generally specified as 20%], TYPE=PER-CUM.

6. All finalized precipitation values provided in the HEC-DSS files shall be plotted, and paper copies of the plots shall be provided in a bound document so that these can be reviewed easily. Observations at adjacent gages may be plotted on the same page (not necessarily on the same plot) to permit comparison. The ordinate scale shall be selected to best display variations in the data.

7. If data are missing for any interval due to gage malfunction, loss of records, and so on, the initial value shown for that interval shall be ➢901. Care should be taken not to confuse missing values and periods of no rainfall. If a gage is functioning, but records no rainfall during an interval, the value stored for the interval shall be 0.00.

8. Table A-1 provides an example of the Metadata table that will be provided for each gage.

A.3 Requirements for Collecting and Delivering Observed STAGE Data for Subbasin Runoff Modeling

1. All stage data should be provided in a single HEC-DSS file (flow data will also be in the same DSS file as the stage data). The data type for all stage records shall be INST-VAL.

2. Event data is to be plotted so that missing data and other anomalies may be observed. After review by HEC, a second HEC-DSS file will be developed which will include the filled-in values if it is deemed appropriate. Utilities within HEC-DSS Math are to be used to replace missing values. If the Contractor recommends another method, it must be approved by HEC prior to its use.

3. Stage values shall be provided as instantaneous stage at intervals of 1-hour and daily.

4. Pathnames assigned to the records in the HEC-DSS file will conform to the following rules:

- A-part shall be a basin name, watershed, or river name, etc.
- B-part shall be the unique name or identifier of the gage.
- C-part shall be STAGE.
- D-part shall be the starting date of the data block.
- E-part shall be the time interval (e.g., 1HOUR, 1DAY).
- F-part shall be a data qualifying descriptor (e.g. OBS, OBS-FILLED IN, OBS-ESTIMATED).

A pathname data dictionary will be developed by the Contractor as a catalog describing the pathname parts.

5. All irregular-interval time series data (for example, stage observations from an ALERT gage) shall be converted to regular-interval time series data. The procedure for converting the data from irregular to regular interval shall be consistent with that used by the algorithms included in the DSSMATH functions TSNAP or TS1. If DSSMATH is not used, you must provide evidence that your method provides the same regular interval data as the DSSMATH function.

One method would be:

For data collected due to an event, such as a change in stage [also known as ⋗event driven data collection▶], use the TSNAP function with the following parameters: DT= <*to be specified*>; TOFF= 0MIN; TBACK = 0MIN; TFORWARD = <*to be specified*> [Note: TFORWARD is generally specified as 10 x DT or 24 hours, whichever is less].

For all other data, use the TS1 function with the parameters DT= <*to be specified*>, and TOFF=0MIN.

6. All finalized stage values provided in the HEC-DSS file shall be plotted, and paper copies of the plots shall be provided in a bound document so that these can be reviewed easily. Observations at adjacent gages may be plotted on the same page (not necessarily on the same plot) to permit comparison. The ordinate scale shall be selected to best display variations in the data.

7. If data are missing for any interval due to gage malfunction, loss of records, and so on, the initial value shown for that interval shall be ➢901. Care should be taken not to confuse missing values and periods of zero stage. If a gage is functioning, but records zero stage at an instant, the value stored for the instant shall be 0.00.

8. Table A-1 provides an example of the Metadata table that will be provided for each gage.

A.4 Requirements for Collecting and Delivering FLOW Data for Subbasin Runoff Modeling

1. All flow data should be provided in the same HEC-DSS file as the stage data. The data type for all flow records shall be INST-VAL.

2. Event data is to be plotted so that missing data and other anomalies may be observed. After review by HEC, a second HEC-DSS file will be developed which will include the filled-in values if it is deemed appropriate. Utilities within HEC-DSS Math are to be used to replace missing values. If the Contractor recommends another method, it must be approved by HEC prior to its use.

3. Flow values shall be provided as instantaneous flow at intervals of 1-hour and daily.

4. Pathnames assigned to the records in the HEC-DSS file will conform to the following rules:
   - A-part shall be a basin name, watershed, or river name, etc.
   - B-part shall be the unique name or identifier of the gage.
   - C-part shall be FLOW.
   - D-part shall be the starting date of the data block.
   - E-part shall be the time interval (e.g., 1HOUR, 1DAY).
   - F-part shall be a data qualifying descriptor (e.g. OBS, OBS-FILLED IN, OBS-ESTIMATED).

A pathname data dictionary will be developed by the Contractor as a catalog describing the pathname parts.

5. For flows that are estimated from observed stages:

   - The flows must be estimated from a regular-interval time series of stages. If the observed stages are irregular interval, they must be converted to regular interval before estimating flow.

   - The rating curve must be stored in the DSS file as paired data. All rating curves will be plotted, and paper copies provided so that they can be easily reviewed.

6. All irregular-interval observed flow time series (for example, flow observations from an ALERT gage), must be converted to regular-interval time series data. The procedure for converting the data from irregular to regular interval shall be consistent with that used by the algorithms included in the DSSMATH functions TSNAP or TS1. If DSSMATH is not used, you must provide evidence that your method provides the same regular interval data as the DSSMATH function.

One method would be:

For data collected due to an event, such as an incremental change in flow [also known as ➢event driven data collection◀], use the TSNAP function with the following parameters: DT= <*to be specified*>; TOFF= 0MIN; TBACK = 0MIN; TFORWARD = <*to be specified*> [Note: TFORWARD is generally specified as 10 x DT].

For all other data, use the TS1 function with the parameters DT= <*to be specified*>, and TOFF=0MIN.

7. All finalized flow values provided in the HEC-DSS file shall be plotted, and paper copies of the plots shall be provided in a bound document so that these can be reviewed easily. Observations at adjacent gages may be plotted on the same page (not necessarily on the same plot) to permit comparison. The ordinate scale shall be selected to best display variations in the data.

8. If data are missing for any interval due to gage malfunction, loss of records, and so on, the value shown for that interval shall be ➢901. Care should be taken not to confuse missing values and periods of zero flow. If a gage is functioning, but records zero flow at an instant, the value stored for the instant shall be 0.00.

9. Table A-1 provides an example of the Metadata table that will be provided for each gage.

Table A-1. Metadata Required for Hydrologic Gages

All data shall include units where appropriate. Recommended or preferred units are indicated in column 3. Each required item must be provided or noted as "Not Available". Optional items are designated with an "(*)" in column (1). The metadata will be provided in an electronic form, such as a spreadsheet. Also, the metadata for each gage will be stored within the DSS file which contains the gage▶ s data (see HEC-DSS Utility Program DSSTXT).

Datum type(1)	Datum value(2)	Preferred units(3)
All gages		
Identification	Name	
	Station ID code or number	
	Source Agency	
(*)	Operator	
Location	Latitude	degrees
	Longitude	degrees
	Horizontal datum	1927 NAD
	Elevation	ft
Period of record	Date when reliable records began, or when gage was moved to this location	
	Date when gage was abandoned or moved to a different location	
	Time windows of data, note missing periods	
Data collection equipment (*)	Data collection methods (storage, tipping bucket, hydrostatic, acoustic, etc.)	
(*)	Data storage or transmission methods (chart recorder, float with shaft encoder, ALERT, etc.)	
Data recovery	Description of where data for gage was obtained	
Precipitation Gages		
Data collection	Reporting interval (if applicable)	minutes
(*)	Time-of-day of report; if time-of day has changed over period of record, provide time windows.	
Location (*)	Description of exposure or nearby obstructions	
Stage and Discharge Gages		
Stage Discharge Relationship	Peak stage of record	ft
	Date(s) gage was rated	
Datum	Reference datum	NGVD 1929
	Height above zero datum	ft

Appendix B

Listing of Agency Contacts for Data Collection

Appendix B

Listing of Agency Contacts for Data Collection

Agency	Primary Contact	Additional Contacts
Amador Ranger District	Chief Jody Gossner Garden Valley CDF 5061 Marshall Rd. Garden Valley, CA 95633 (530) 333-4551	Dave Helton USFS - Amador Ranger District 26820 Silver Pioneer, CA 95666 (209) 295-4251
CA Dept of Forestry	901 P St. Sacramento, CA	1416 9th St. Sacramento, CA 95814 (916) 653-5121 Pete Cafferata, Hydrologist 916-653-9455 Clay Brandow California Department of Forestry and Fire Protection 1416 Ninth Street, Room 1516-04 Sacramento, CA 95814 (916) 653-0719 (voice)
CA Dept of Parks & Recreation	P.O. Box 942896 Sacramento, CA 94296-0001 General Information Telephone (916) 653-6995	Tony Perez, Supt. Carnegie SVRA 15751 Tesla Road Livermore CA 94550 925 447-0426 Bill Carter - gage operator 925 447-9027

Agency	Primary Contact	Additional Contacts
CA Dept of Water Resources	1416 9th St. Sacramento, CA 95814 (916) 653-5791 or Gary Hester Chief, Hydrology Br. (916) 574-2612 or Mark Heggli Chief, CDEC (916) 574-2627	Central District Office Bob Nozuka Department of Water Resources Central District 3251 S Street Sacramento CA 95816-7017 - 916-227-7597 Northern Area Office - John Clements 530-529-7369 Fax 530-529 7322 - Pat Parsons 530-529-7358 - Tito Cervantes 530-529-7389 San Joaquin Office - Iris Yamagata 559-230-3327 or - Larry Baxter 559-230-3361 Fax 559-230-3301 Flood Management (Snow) - Frank Gehrke 916-574-2635 CDEC - Dave Parker 916-574-2630
CA Dept of Water Resources-WEA MOD	See above CA Dept of Water Resources	
Calaveras County	Tom Taylor Northern CA Power Agency PO Box 2280 Murphys CA 95247 (209)728-1387 ext 22	Calaveras County said to contact Northern CA Power Agency Barry Sullivan ext 24 Ron Coombs ext. 34
Cannell Meadow Ranger District	Wendy Russ Cannell Meadow Ranger District Sequoia Nat'l Forest PO Box 9 Kernville CA 93238 (760) 376-3781	
City of Roseville	Garth Gaylord City of Roseville 316 Vernon Street Roseville CA 95678 (530)774-5339	Rob Nelson 2005 Hilltop Circle Roseville CA 95747 916-774-5794 rnelson@roseville.ca.us
Doublehead Ranger District	Sue Becker, Hydrologist Modoc National Forest 800 West 12th Street Alturas, CA 96101 (530) 233-8834	Mike Kegg Doublehead Ranger District 530-667-2246

Agency	Primary Contact	Additional Contacts
East Bay Municipal Water District	375 Eleventh St. Oakland, CA 94607-4240 (510) 835-3000	Dick Stein Water Supply Engineering 510-835-3000 Jim Burgess Lodi Office - Streamflow gages 209-368-1475
Fresno Metropolitan FC District	5469 E. Olive Ave. Fresno, CA 93727-3624 (559) 263-1578	Kurt Hupp 559-456-3292
Glenn County	Bob Johnson Glenn County Public Works PO Box 1070 Willows CA 95988 (530)934-6530	
Hat Creek Ranger District	P.O. Box 220, Hwy. 299 E Fall River Mills, CA 96028 (530) 336-5521	Steve Young - Susanville Hydrologist (530) 257-2151
Hetch Hetchy Municipal Water District	Michael Tsang Hetch Hetchy Water & Power 1155 Market Street 4th Floor San Francisco CA 94103 (415) 554-0724	now Hetch Hetchy Water & Power
Kern County	Clark Farr, Hydrologist Kern County Engineering & Surveying Services 2700 M Street Suite 570 Bakersfield CA 93301 *and* Richard Lloyd Kern County Engineering & Surveying Services 2700 M Street Suite 570 Bakersfield CA 93301	Rick Iger Kern County Water Agency PO Box 58 Bakersfield, CA 93302 (661) 393-6200
Kings River Water Association	Doug Woodman, Watermaster Kings River Water Association 4888 E Jensen Ave Fresno CA 93725 (559) 266-0767	
Lake County	Alex Straessle Lake County Public Works 255 N Forbes Room 309 Lakeport CA 95453 (707) 263-2341	

Agency	Primary Contact	Additional Contacts
McCloud Ranger District	Steve Bachmann McCloud Ranger District PO Box 1620 McCloud CA 96057 (530)964-2184	
Merced County	Curt Royer County of Merced 715 Martin Luther King Jr. Way Merced, CA 95340 (209)385-7601	
Merced Irrigation District	Tom Stevens Merced Irrigation District PO Box 2288 Merced, CA 95344-0288 (209) 722-5761	also possible contact: Bob Acker and/or Bob Tullis
Modoc County	Public Works 202 W. 4th St. Alturas, CA. 96101 (530) 233-6403	
Modoc NF, Warner Mountain Ranger District	Tom Hill NRCS 800 West 12th Street Alturas CA 96101	Tom Hill 530-233-8864
National Park Service	- see Sequoia and Kings Canyon National Parks and Yosemite National Park below	
National Weather Service	California/Nevada River Forecast Center 3310 El Camino Ave. Room 226 Sacramento, CA 95821-6308 (916) 979-3056 ext 327 Todd Mendell	North Coast 300 Startare Dr. Eureka, CA 95501 (707) 443-6484 San Joaquin Valley - NWS 900 Foggy Bottom Road Hanford, CA 93230 (559) 584-3752 San Francisco Area - NWS 21 Grace Hopper Ave, Stop 5 Monterey, CA 93943-5505 (831) 656-1725
Nevada County	General Services 950 Maidu Avenue Nevada City, Calif 95959 (530) 265-1403	
Nevada Irrigation District	Sue Sindt Nevada Irrigation District PO Box 1019 Grass Valley CA 95945-1019 (530) 271-6883	

Agency	Primary Contact	Additional Contacts
Oroville-Wyandotte Irrigation	Steve Onken Oroville-Wyandotte Irrigation District PO Box 581 Oroville, CA 95965-0581 *and* Bill Faulkender Surface Water Data Inc 7250-F Auburn Blvd Citrus Heights, CA 95610	Surface Water Data is a sub to OWID for their stream gaging
Pacific Gas & Electric	77 Beale St. San Francisco, CA 94106	Possible Contact: Gary Freeman .. 415-973-5320 Gary Freeman Mail Code N13-C PO Box 770000 San Francisco, CA 94177 mailed 9/13/99
PG&E, Angels Camp	- see Auburn	
PG&E, Auburn	Frank Lynch 343 Sacramento St. Auburn, CA 95603 (530) 889-3187	also possible contact: Grant Winslow (530) 889-3211
PG&E, Placerville	- see Auburn	
PG&E, Rogers Flat	- see Auburn	
Placer County	Leslie Gault Placer County Flood Control 11444 B Street Dewitt Center Auburn CA 95603	Placer County directed us to Placer County Flood Control 530-889-7592
Placer County Water Agency	Steve Jones Placer County Water Agency/ Power Systems PO Box 667 Forest Hill 95631 *and* Tim Daniels Placer County Water Agency PO Box 6570 Auburn CA 95604	Jones: 530-885-6917 Daniels: 530-823-4850 Alex Dileo
Sacramento County	John Huber Water Resources 827 7th Street Room 301 Sacramento CA 95814 (916) 874-6851	

Agency	Primary Contact	Additional Contacts
Sacramento Dept of Public Works	Rod McCarley Dept of Utilities 1395 35th Ave. Sacramento CA 95822 (916)433-6217	827 7th St. Sacramento, CA 95814 (916) 874-6581
Sacramento Municipal Utility District	Rodd Lindberg SMUD Box 15830 Mail Stop B355 Sacramento CA 95852-1830 (916) 433-6217	
San Joaquin County	Michael Callahan County of San Joaquin 1810 E Hazelton Ave PO Box 1810 Stockton CA 95201 (209) 468-3062	
Sequoia and Kings Canyon NP	Bob Wilson Sequoia & Kings Canyon NP 47050 General's Hwy Three Rivers CA 93271	Ash Mountain, Lodgepole, Grand Grove *only*
Southern California Edison Big Creek	Southern California Edison PO Box 788 Rialto, CA 92377 1-800-655-4555	
Sutter County	Mary Keller Sutter County 1160 Civic Center Blvd. Yuba City CA 95933	530-822-7450
Tule River Ranger District	Les Curtis Tule River Ranger District 32588 Highway 190 Springville CA 93265 (559)539-2607	Beth Little (Redding) 530-246-5113
Turlock Irrigation District	Tim Gormley Turlock Irrigation District PO Box 949 Turlock CA 95381 (209) 883-8321	(209) 883-8321
US Army Corps of Engineers	Wayne Johnson Lead Field Hydrologic Tech. 1325 J St. Sacramento, CA 95814 (916) 557-7107	
US Bureau of Land Management	2135 Butano Drive Sacramento, CA 95825 (916) 978-4630	Jack Mills - Environmental Specialist

Agency	Primary Contact	Additional Contacts
US Bureau of Reclamation	2800 Cottage Way Sacramento, CA 95825	Central Valley Operations 3310 El Camino Ave. Room 226 Sacramento, CA 95821-6308 Valerie Ungvari 916 979-2448
US Forest Service	USDA Forest Service Pacific Southwest Region 1323 Club Drive Vallejo, CA 94592 (707) 562-8737 Dilip Paul Hydro SERC Specialist 707 562-8970 fx: 707 562-9049 Marty Gemling 209-965-3434 x 5263 John Rector 707-562-8955	El Dorado NF 100 Forni Road Placerville, CA 95667 (530) 622-5061 Klamath NF 1312 Fairlane Road Yreka, CA 96097-9549 (530) 842-6131 Lassen NF 55 S. Sacramento St Susanville, CA 96130 (530) 257-2151 Mendocino NF 825 N. Humbolt Ave. Willows, CA, 95988 (530) 934-3316 Plumas NF 159 Lawrence St. PO Box 11500 Quincy, CA 95971 (530) 283-2050 Sequoia NF (559) 784-1500 900 West Grand Avenue Porterville, CA 93257 (209) 784-1500 Shasta - Trinity National Forests 2400 Washington Avenue Redding, CA 96001 (530) 246-5222 Sierra NF 1600 Tollhouse Road Clovis, CA 93612 (559) 297-0706 Stanislaus NF 19777 Greenley Road Sonora, CA 95370 (209) 532-3671 Tahoe NF 631 Coyote St. Nevada City CA 95959 (530) 265-4531

Agency	Primary Contact	Additional Contacts
US Geological Survey	Michael Shulters, Chief Water Resources Division Placer Hall, Bldg 56 6000 J St. Sacramento, CA 95819-6129 (916) 278-3024	Bakersfield Office 3801 Pegasus Drive Bakersfield, CA 93308 (661) 391-6112 Carnelian Bay Office Gerald Rockwell 5229 North Lake Boulevard Carnelian Bay, CA 96140 (530) 546-0187 Redding Office Michael F. Friebel U.S. Geological Survey 11075 Black Marble Way Redding, CA 96003 (530) 246-5282 Sacramento Office 8550 23rd Avenue Sacramento, CA 95826 (916) 381-0207 Salinas Office Lawrence A. Freeman 1636 E. Alisal Street Salinas, CA 93905 (408) 754-6717 Ukiah Office Michael D. Webster 2550 N State Street Ukiah, CA 95482-3023 (707) 468-4040
US National Forest	- see US Forest Service above	
USGS and CA Dept of Water Resources	- see US Geological Survey and CA Department of Water Resources above	
Yolo County	Planning & Public Works Dept. 292 West Beamer Street Woodland, CA 95695 (530) 666-8775	David Morrison
Yosemite National Park	Yosemite National Park P.O. Box 577 Yosemite, CA 95389 (209) 372-0200, 6, 2, 3	
Yuba County	938 14th St. Marysville, CA 95901 (530) 749-7575	
Yuba County Water Agency	Nancy Jones Yuba County Water Agency 1402 D Street Marysville CA 95901-4226 (530) 741-6278	

Appendix C

HEC-DSS Condensed Catalog Listings (for 28 Period-of-Record DSS Files)

Appendix C
Table of Contents

Period-of-Record Data Stored in HEC-DSS Files by Geographic Area

Appendix C
HEC-DSS Condensed Catalog Listings
(for 28 Period-of-Record DSS Files)

HECDSS Condensed Catalog of Record Pathnames in File **SAC01.DSS**

Catalog Created on Dec 20, 1999 at 14:14 File Created on Aug 25, 1999
Number of Records: 1314 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	AMERICAN RIVER	11446200	STORAGE	HYDROCD	1DAY	01JAN1955 - METADATA *
T9	- - - - - - -	11446500	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T479	- - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T103	- - - - - - -	11447000	FLOW	HYDROCD	1DAY	01JAN1943 - METADATA *
T120	- - - - - - -	11447030	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA *
T125	- - - - - - -	11447270	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T130	- - - - - - -	11447293	FLOW	HYDROCD	1DAY	01JAN1996 - METADATA *
T619	- - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1996 - METADATA *
T132	- - - - - - -	11447300	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T137	- - - - - - -	11447330	FLOW	HYDROCD	1DAY	01JAN1995 - METADATA *
T633	- - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1995 - METADATA *
T140	- - - - - - -	11447360	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T656	- - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01DEC1995 - METADATA *
T1185	- - - - - - -	ANTELOPE CREEK - 1621	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1013	- - - - - - -	ARCADE CR AT AMERICAN R COLL	STAGE	CDEC-WEB	1HOUR	01OCT1996 - METADATA *
T1018	- - - - - - -	ARDEN WAY	STAGE	CDEC-WEB	1HOUR	01NOV1996 - METADATA *
T1214	- - - - - - -	CAPERTON RESERVOIR - 1616	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1250	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1200	- - - - - - -	CHAMPION OAKS - 1626	FLOW	ALERT	1HOUR	01DEC1996 - METADATA *
T1197	- - - - - - -	- - - - - - - - - - - - - - - -	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1203	- - - - - - -	CIRBY CREEK - 1607	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1194	- - - - - - -	CIRBY CREEK - 1623	FLOW	ALERT	1HOUR	01DEC1996 - METADATA *
T1191	- - - - - - -	- - - - - - - - - - - - - - - -	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T408	- - - - - - -	CITRUS HEIGHTS	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T553	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1972 - METADATA *
T636	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1972 - METADATA *
T1167	- - - - - - -	DEL ORO H.S - 1612	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1244	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1161	- - - - - - -	DIAMOND OAKS - 1601	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1238	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1382	- - - - - - -	FAIR OAKS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T1381	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T4	- - - - - - -	FOLSOM	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T8	- - - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T424	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T554	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T637	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T963	- - - - - - -	FOLSOM LAKE	FLOW-RES IN	USBR	1DAY	01JAN1955 - METADATA *
T1027	- - - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1955 - METADATA *
T929	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1966 - METADATA *
T1115	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	USBR	1DAY	01JAN1976 - METADATA *
T1091	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	USBR	1DAY	01JAN1976 - METADATA *
T433	- - - - - - -	FOLSOM-DAM	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T562	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954 - METADATA *
T645	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954 - METADATA *
T5	- - - - - - -	LAKE NATOMA	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T10	- - - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T1002	- - - - - - -	LAKE NATOMA (NIMBUS DAM)	FLOW-RES IN	USBR	1DAY	01JAN1975 - METADATA *
T1066	- - - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1975 - METADATA *
T1209	- - - - - - -	LINDA CK AT OAKRIDGE	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1206	- - - - - - -	LINDA CREEK - 297	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1223	- - - - - - -	LINDA CREEK - 299	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1259	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1220	- - - - - - -	LOOMIS OBSERVATORY - 1624	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1256	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC01.DSS** - *Continued*

T1164	- - - - - - -	MINERS RAVINE @ MOSS - 1610	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1241	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1211	- - - - - - -	MINERS RAVINE @ MOSS LANE	STAGE	ALERT	1HOUR	01JAN1997 - METADATA *
T1170	- - - - - - -	NEWCASTLE - 1614	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1247	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T473	- - - - - - -	REPRESA	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T602	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T685	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T520	- - - - - - -	ROCKLIN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T607	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T690	- - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1235	- - - - - - -	ROSEVILLE H2O PLANT - 6032	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1271	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1182	- - - - - - -	ROYER PARK - 1630	FLOW	ALERT	1HOUR	01DEC1996 - METADATA *
T1179	- - - - - - -	- - - - - - - - - - - - - - - -	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1232	- - - - - - -	ROYER PARK - 1632	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1268	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1188	- - - - - - -	SECRET RAVINE - 1619	STAGE	ALERT	1HOUR	01DEC1996 - METADATA *
T1217	- - - - - - -	SIERRA COLLEGE - 1618	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1253	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1229	- - - - - - -	STRAP RAVINE - 1613	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1265	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1226	- - - - - - -	TARGET - 1604	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T1262	- - - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T1014	- - - - - - -	VAN MAREN	STAGE	CDEC-WEB	1HOUR	01OCT1996 - METADATA *
T1176	- - - - - - -	VERNON ST - 1603	FLOW	ALERT	1HOUR	01DEC1996 - METADATA *
T1173	- - - - - - -	- - - - - - - - - - - - - - - -	STAGE	ALERT	1HOUR	01DEC1996 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC02.DSS**

Catalog Created on Dec 20, 1999 at 14:15 File Created on Aug 25, 1999
Number of Records: 3486 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	BEAR RIVER	11414194	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T18	- - - - -	11414195	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T35	- - - - -	11414196	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T52	- - - - -	11421710	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T70	- - - - -	11421720	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T93	- - - - -	11421725	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T110	- - - - -	11421730	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T116	- - - - -	11421750	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T150	- - - - -	11421760	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T2773	- - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T183	- - - - -	11421770	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T216	- - - - -	11421780	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T2882	- - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T249	- - - - -	11421790	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T3410	- - - - -	11421800	ELEV	USGS	1HOUR	01OCT1993 - METADATA *
T47	- - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1964 - METADATA *
T3306	- - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T282	- - - - -	11421900	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T301	- - - - -	11422000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T378	- - - - -	11422500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T2991	- - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T423	- - - - -	11423000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T451	- - - - -	11423500	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T475	- - - - -	11423800	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T484	- - - - -	11424000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T3100	- - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T554	- - - - -	11424001	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T565	- - - - -	11424500	FLOW	HYDROCD	1DAY	01JAN1946 - METADATA *
T3487	- - - - -	BEAR RIVER	PRECIP-INC	PG&E	1DAY	01JAN1998 - METADATA *
T1486	- - - - -	BLUE CANYON	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T3513	- - - - -	CAMP FAR WEST RES NR SHERIDAN	STAGE	DWRC	1HOUR	01OCT1997 - METADATA *
T1095	- - - - -	COLFAX	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1273	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1375	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1141	- - - - -	GOLD RUN-2 SW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1319	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1977 - METADATA *
T1421	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1977 - METADATA *
T1187	- - - - -	GRASS VALLEY	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2092	- - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1962 - METADATA *
T1320	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1422	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2143	- - - - -	GRASS VALLEY 2 NNE	PRECIP-INC	TD3240	1HOUR	01OCT1950 - METADATA *
T2652	- - - - -	GRASS VALLEY NO 2	PRECIP-INC	TD3240	1HOUR	01OCT1960 - METADATA *
T1207	- - - - -	GRASS VALLEY-2 NNE	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T1209	- - - - -	GRASS VALLEY-NO 2	PRECIP-INC	TD3200	1DAY	01JAN1966 - METADATA *
T1339	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1966 - METADATA *
T1441	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1966 - METADATA *
T1237	- - - - -	HIDDEN VALLEY-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T3576	- - - - -	LAKE SPAULDING	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T2674	- - - - -	WHEATLAND 2 NE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1254	- - - - -	WHEATLAND-2 NE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1258	- - - - -	WOLF	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC03.DSS**

Catalog Created on Dec 20, 1999 at 14:15 File Created on Aug 25, 1999
Number of Records: 2754 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	STONY CREEK	11384500	FLOW	HYDROCD	1DAY	01JAN1913 - METADATA *
T21	- - - - -	11384600	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T39	- - - - -	11385000	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T66	- - - - -	11385500	FLOW	HYDROCD	1DAY	01JAN1933 - METADATA *
T75	- - - - -	11386500	FLOW	HYDROCD	1DAY	01JAN1935 - METADATA *
T88	- - - - -	11387000	FLOW	HYDROCD	1DAY	01JAN1900 - METADATA *
T120	- - - - -	11387200	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T126	- - - - -	11387500	FLOW	HYDROCD	1DAY	01JAN1919 - METADATA *
T142	- - - - -	11387800	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T185	- - - - -	11387995	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T76	- - - - -	- - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1963 - METADATA *
T3913	- - - - -	ALDER SPR	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01JUN1999
T146	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1964 - METADATA *
T1415	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T657	- - - - -	- - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01DEC1994 - 01SEP1999
T197	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1969 - METADATA *
T1453	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T175	- - - - -	- - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T171	- - - - -	- - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T1485	- - - - -	ANTHONY PEAK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T130	- - - - -	BLACK BUTTE	ELEV	CESPK	1DAY	01JAN1963 - METADATA *
T2772	- - - - -	- - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T57	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1963 - METADATA *
T1395	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T153	- - - - -	- - - - - - - - - - -	FLOW-NAT	CESPK	1DAY	01JAN1963 - METADATA *
T2717	- - - - -	- - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T28	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1963 - METADATA *
T1396	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3040	- - - - -	- - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T188	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1963 - METADATA *
T1397	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2892	- - - - -	- - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T78	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T1418	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T114	- - - - -	- - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1963 - METADATA *
T644	- - - - -	- - - - - - - - - - -	STAGE	CESPK	1HOUR	01DEC1994 - METADATA *
T157	- - - - -	- - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1963 - METADATA *
T74	- - - - -	- - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1963 - METADATA *
T115	- - - - -	- - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1963 - METADATA *
T367	- - - - -	EAST PARK-RESERVOIR	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T536	- - - - -	- - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T643	- - - - -	- - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2542	- - - - -	NOEL SPR	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T4	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1964 - METADATA *
T1421	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2544	- - - - -	- - - - - - - - - - -	SNOW-WEQV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2576	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1994 - METADATA *
T1460	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1118	- - - - -	- - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2636	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T1464	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2613	- - - - -	- - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T2601	- - - - -	- - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T4120	- - - - -	PLASKETT MDW	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T4158	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1994 - METADATA *
T1423	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10108	- - - - -	- - - - - - - - - - -	SNOW-WEQV	CESPK	1HOUR	01JUL1998 - METADATA *
T1840	- - - - -	- - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999
T4277	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T1469	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4238	- - - - -	- - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T4195	- - - - -	- - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T3833	- - - - -	SOUTH DIV @BLB	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T171	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1963 - METADATA *
T1398	- - - - -	- - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T647	- - - - -	- - - - - - - - - - -	STAGE	CESPK	1HOUR	01DEC1994 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC03.DSS** - *Continued*

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T478    - - - - -    STONY GORGE-RESERVOIR   PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T757    - - - - -    - - - - - - - - - - -   - - - - - -   TD3240    1HOUR      01JUL1948 - METADATA *
T588    - - - - -    - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1947 - METADATA *
T695    - - - - -    - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1947 - METADATA *
T1354   - - - - -    STONYFORD - AMIGEO      PRECIP-INC    DWR-ZIP   1DAY       01JAN1988 - METADATA *
T413    - - - - -    STONYFORD-COOLEY RANCH  PRECIP-INC    TD3200    1DAY       01JAN1959 - METADATA *
T582    - - - - -    - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1975 - METADATA *
T689    - - - - -    - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1975 - METADATA *
T432    - - - - -    STONYFORD-R S           PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T583    - - - - -    - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1970 - METADATA *
T690    - - - - -    - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1970 - METADATA *
T4426   - - - - -    TROUGH SPR              PRECIP-INC    CESPK     1HOUR      01FEB1995 - 01AUG1999
T176    - - - - -    - - - - - - - - - - -   - - - - - -   - - - -   1DAY       01JAN1964 - METADATA *
T1430   - - - - -    - - - - - - - - - - -   - - - - - -   - - - -   1HOUR      METADATA
T1951   - - - - -    - - - - - - - - - - -   TEMP-AIR      CESPK     1HOUR      01NOV1995 - 01SEP1999
T4446   - - - - -    - - - - - - - - - - -   - - - - - -   - - - -   1DAY       01JAN1995 - METADATA *
T1474   - - - - -    - - - - - - - - - - -   - - - - - -   - - - -   1HOUR      METADATA
T4435   - - - - -    - - - - - - - - - - -   TEMP-AIR MAX  CESPK     1DAY       01JAN1995 - METADATA *
T4433   - - - - -    - - - - - - - - - - -   TEMP-AIR MIN  CESPK     1DAY       01JAN1995 - METADATA
  *  Record time span has missing periods.
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HECDSS Condensed Catalog of Record Pathnames in File **SAC04.DSS**

Catalog Created on Dec 20, 1999 at 14:16 File Created on Aug 25, 1999
Number of Records: 8128 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T5596	CACHE CREEK	11448500	FLOW	HYDROCD	1DAY	01JAN1954 - METADATA *
T5965	- - - - -	11448900	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T6017	- - - - -	11449000	FLOW	HYDROCD	1DAY	01JAN1954 - METADATA *
T6164	- - - - -	11449010	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T5921	- - - - -	11449100	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T5979	- - - - -	11449350	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T6105	- - - - -	11449450	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T6016	- - - - -	11449460	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T5796	- - - - -	11449500	FLOW	HYDROCD	1DAY	01JAN1946 - METADATA *
T6694	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T11297	- - - - -	11450000	ELEV	USGS	1HOUR	01OCT1989 - METADATA *
T6181	- - - - -	11450500	FLOW	HYDROCD	1DAY	01JAN1900 - METADATA *
T6316	- - - - -	11451000	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T7042	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T6000	- - - - -	11451100	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA *
T7403	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T5631	- - - - -	11451300	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6701	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T6356	- - - - -	11451500	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T6221	- - - - -	11451520	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T5815	- - - - -	11451700	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T6241	- - - - -	11451720	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T5742	- - - - -	11451760	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T6001	- - - - -	11451950	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6629	- - - - -	11452000	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T291	- - - - -	11452500	FLOW	HYDROCD	1DAY	01JAN1902 - METADATA *
T6830	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T10643	- - - - -	ABBOTT-MINE	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T13213	- - - - -	BEAR CR NR RUMSEY	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1995
T13055	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T14896	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T13921	- - - - -	- - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1995
T13137	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1978 - METADATA *
T14947	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8216	- - - - -	BROOKS	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T7906	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T6994	- - - - -	BROOKS FARNHAM RANCH	PRECIP-INC	TD3240	1HOUR	01FEB1949 - METADATA *
T9736	- - - - -	BROOKS-FARNHAM RANCH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10804	- - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T9731	- - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T14665	- - - - -	CACHE CREEK @ RUMSEY	FLOW	DWRC	1DAY	01JAN1975 - METADATA *
T14689	- - - - -	- - - - - - - - - - - - - - - - -	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T2	- - - - -	CACHE CREEK @ RUMSEY BR	FLOW	PHASE1	1HOUR	01MAR1995 - METADATA *
T6213	- - - - -	CAPAY 5 WNW	PRECIP-INC	TD3240	1HOUR	01APR1976 - METADATA *
T8042	- - - - -	CLEARLAKE 4 SE	PRECIP-INC	TD3240	1HOUR	01OCT1954 - METADATA *
T8165	- - - - -	CLEARLAKE PARK	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T8490	- - - - -	CLEARLAKE-4 SE	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T10868	- - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954 - METADATA *
T10831	- - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954 - METADATA *
T8128	- - - - -	CLEARLAKE-PARK	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6636	- - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T10333	- - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T11230	- - - - -	COBB	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T9104	- - - - -	COBB-2 NW	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T7340	- - - - -	CORDES	PRECIP-INC	TD3200	1DAY	01JAN1956 - METADATA *
T452	- - - - -	COYOTE	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T419	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1991 - METADATA *
T11459	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T74	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1991 - METADATA *
T10907	- - - - -	CUNNINGHAM	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T10366	- - - - -	FINLEY	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T9007	- - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JAN1956 - METADATA *
T11242	- - - - -	FINLEY 1 SSE	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T6878	- - - - -	FINLEY 5 SW	PRECIP-INC	TD3240	1HOUR	01NOV1957 - METADATA *
T8511	- - - - -	FINLEY-1 SSE	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *
T10916	- - - - -	FINLEY-5 SW	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC04.DSS** - *Continued*

T6703	- - - - - -	HOBERGS-M I U	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8902	- - - - - -	HOPLAND 8 NE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T14908	- - - - - -	HOPLAND FS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T14907	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T9910	- - - - - -	HOPLAND-8 NE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10929	- - - - - -	HOPLAND-LARGO STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T40	- - - - - -	INDIAN VALLEY	FLOW-RES IN	PHASE1	1HOUR	01DEC1996 - METADATA *
T42	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01DEC1996 - METADATA *
T10942	- - - - - -	INDIAN-VALLEY	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T13381	- - - - - -	KELSEY CR BELOW KELSEYVILLE	FLOW	DWRN	1HOUR	01OCT1980 - 01SEP1996*
T13076	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T14902	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T14089	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1980 - 01SEP1996
T13155	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T14949	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10585	- - - - - -	KELSEYVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10927	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1964 - METADATA *
T10956	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1964 - METADATA *
T11251	- - - - - -	KELSEYVILLE 2N	PRECIP-INC	DWR-ZIP	1DAY	01JAN1995 - METADATA *
T8029	- - - - - -	KELSEYVILLE 4 SW	PRECIP-INC	TD3240	1HOUR	01JAN1956 - METADATA *
T8706	- - - - - -	LAKE MENDOCINO DAM	PRECIP-INC	TD3240	1HOUR	01JUN1972 - METADATA *
T10954	- - - - - -	LAKEPORT	PRECIP-INC	TD3200	1DAY	01JAN1940 - METADATA *
T10177	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1940 - METADATA *
T8947	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1940 - METADATA *
T8468	- - - - - -	LAKEPORT SCS	PRECIP-INC	TD3240	1HOUR	01JAN1956 - METADATA *
T9357	- - - - - -	LEESVILLE-KEEGAN RANCH	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T11254	- - - - - -	LONG VALLEY-GARNER RCH (S)	PRECIP-INC	DWR-ZIP	1DAY	01JAN1955 - METADATA *
T8104	- - - - - -	MAHNKE	PRECIP-INC	TD3240	1HOUR	01JAN1956 - METADATA *
T13561	- - - - - -	MIDDLE CR NR UPPER LAKE	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1996
T13093	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T14904	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T14281	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1996
T13172	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1977 - METADATA *
T14951	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10528	- - - - - -	PITTS RANCH	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T7516	- - - - - -	POTTER VALLEY 3 SE	PRECIP-INC	TD3240	1HOUR	01DEC1952 - METADATA *
T281	- - - - - -	POTTER VLY	PRECIP-INC	CESPK	1HOUR	01DEC1995 - 01AUG1999
T280	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T11484	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11047	- - - - - -	RUMSEY-1 NW	PRECIP-INC	TD3200	1DAY	01JAN1986 - METADATA *
T10353	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1986 - METADATA *
T8909	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1986 - METADATA *
T13741	- - - - - -	SCOTTS CR @ EICKHOFF RD NR LAKEP	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1996
T13115	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T14906	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T14461	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1996
T13192	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1976 - METADATA *
T14953	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8325	- - - - - -	THE GEYSERS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T7395	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T11048	- - - - - -	UKIAH	PRECIP-INC	TD3200	1DAY	01JAN1906 - METADATA *
T11101	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1906 - METADATA *
T10893	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1906 - METADATA *
T11168	- - - - - -	UKIAH-MUNICIPAL AP	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T11169	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1949 - METADATA *
T10967	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1949 - METADATA *
T10029	- - - - - -	UPPER LAKE-7 W	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T11027	- - - - - -	UPPER LAKE-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T9127	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T11186	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4567	- - - - - -	WARM SPRINGS	PRECIP-INC	CESPK	1HOUR	01SEP1994 - 01AUG1999
T7646	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1991 - METADATA *
T11494	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3709	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1991 - METADATA *
T3755	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1991 - METADATA *
T3743	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1991 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC05.DSS**

Catalog Created on Dec 20, 1999 at 14:18 File Created on Sep 13, 1999
Number of Records: 13178 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	FEATHER R @ LK OR	11391400	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T24	- - - - - - - -	11391460	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T35	- - - - - - - -	11391500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T74	- - - - - - - -	11392100	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T87	- - - - - - - -	11392500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T143	- - - - - - - -	11393000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T161	- - - - - - - -	11393500	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T184	- - - - - - - -	11394000	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T194	- - - - - - - -	11394500	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T230	- - - - - - - -	11394620	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T249	- - - - - - - -	11394800	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T155	- - - - - - - -	11395020	STORAGE	HYDROCD	1DAY	01JAN1962 - METADATA *
T270	- - - - - - - -	11395030	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T2148	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T316	- - - - - - - -	11395150	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T2149	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T342	- - - - - - - -	11395200	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T2150	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T381	- - - - - - - -	11395300	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T190	- - - - - - - -	11395400	STORAGE	HYDROCD	1DAY	01JAN1944 - METADATA *
T392	- - - - - - - -	11395500	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T2151	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T445	- - - - - - - -	11396000	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T2152	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T511	- - - - - - - -	11396090	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T538	- - - - - - - -	11396200	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T2153	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T576	- - - - - - - -	11396290	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T603	- - - - - - - -	11396300	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T608	- - - - - - - -	11396310	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T2154	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T645	- - - - - - - -	11396350	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T674	- - - - - - - -	11396351	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T681	- - - - - - - -	11396395	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T691	- - - - - - - -	11396396	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T701	- - - - - - - -	11396397	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T711	- - - - - - - -	11396400	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T2155	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01FEB1987 - METADATA *
T740	- - - - - - - -	11396401	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T747	- - - - - - - -	11396500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T802	- - - - - - - -	11397000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T858	- - - - - - - -	11397001	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T909	- - - - - - - -	11397500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T963	- - - - - - - -	11397501	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T104	- - - - - - - -	11399000	STORAGE	HYDROCD	1DAY	01JAN1913 - METADATA *
T1008	- - - - - - - -	11399500	FLOW	HYDROCD	1DAY	01JAN1905 - METADATA *
T1101	- - - - - - - -	11400000	FLOW	HYDROCD	1DAY	01JAN1936 - METADATA *
T1130	- - - - - - - -	11400200	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1148	- - - - - - - -	11400500	FLOW	HYDROCD	1DAY	01JAN1936 - METADATA *
T1206	- - - - - - - -	11400600	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1224	- - - - - - - -	11401000	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T261	- - - - - - - -	11401050	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T1242	- - - - - - - -	11401100	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T1251	- - - - - - - -	11401109	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T278	- - - - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1984 - METADATA *
T1255	- - - - - - - -	11401110	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1273	- - - - - - - -	11401112	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T1303	- - - - - - - -	11401125	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T1319	- - - - - - - -	11401150	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T1327	- - - - - - - -	11401165	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA *
T1335	- - - - - - - -	11401180	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T1353	- - - - - - - -	11401199	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T1371	- - - - - - - -	11401200	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T1394	- - - - - - - -	11401300	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T1401	- - - - - - - -	11401500	FLOW	HYDROCD	1DAY	01JAN1905 - METADATA *
T2158	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC05.DSS** - *Continued*

T1479	- - - - - - - -	11401900	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T1485	- - - - - - - -	11401940	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T1492	- - - - - - - -	11402000	FLOW	HYDROCD	1DAY	01JAN1933 - METADATA *
T2230	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1557	- - - - - - - -	11402500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T1580	- - - - - - - -	11403000	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T1608	- - - - - - - -	11403050	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1626	- - - - - - - -	11403200	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T280	- - - - - - - -	11403300	STORAGE	HYDROCD	1DAY	01JAN1983 - METADATA *
T1646	- - - - - - - -	11403450	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T283	- - - - - - - -	11403500	STORAGE	HYDROCD	1DAY	01JAN1928 - METADATA *
T1671	- - - - - - - -	11403510	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T352	- - - - - - - -	11403520	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T1675	- - - - - - - -	11403530	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T10394	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PG&E	1DAY	01JAN1982 - METADATA *
T1691	- - - - - - - -	11403700	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1709	- - - - - - - -	11403800	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1727	- - - - - - - -	11404000	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T1743	- - - - - - - -	11404100	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T1762	- - - - - - - -	11404240	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T369	- - - - - - - -	11404250	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T1767	- - - - - - - -	11404300	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T1792	- - - - - - - -	11404330	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T1812	- - - - - - - -	11404360	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1830	- - - - - - - -	11404380	FLOW	HYDROCD	1DAY	01JAN1992 - METADATA *
T1834	- - - - - - - -	11404400	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T1850	- - - - - - - -	11404500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T1938	- - - - - - - -	11404900	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T1969	- - - - - - - -	11404901	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T1986	- - - - - - - -	11405000	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T386	- - - - - - - -	11405075	STORAGE	HYDROCD	1DAY	01JAN1983 - METADATA *
T1994	- - - - - - - -	11405085	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T389	- - - - - - - -	11405100	STORAGE	HYDROCD	1DAY	01JAN1983 - METADATA *
T1996	- - - - - - - -	11405120	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T2006	- - - - - - - -	11405200	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T2019	- - - - - - - -	11405220	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T2023	- - - - - - - -	11405300	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T2053	- - - - - - - -	11405301	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T2060	- - - - - - - -	11405500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T2088	- - - - - - - -	11406000	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T2114	- - - - - - - -	11406500	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T362	- - - - - - - -	11406798	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T364	- - - - - - - -	11406799	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T398	- - - - - - - -	11406817	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T400	- - - - - - - -	11406818	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T420	- - - - - - - -	11406819	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T392	- - - - - - - -	11423700	STORAGE	HYDROCD	1DAY	01JAN1966 - METADATA *
T10728	- - - - - - - -	ABBEY	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T10732	- - - - - - - -	ANTELOPE RIDGE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T10749	- - - - - - - -	BROWNS CAMP	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4370	- - - - - - - -	BRUSH CREEK R S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2527	- - - - - - - -	BRUSH CREEK-R S	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2564	- - - - - - - -	BUCKS CREEK-P H	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T3314	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1979 - METADATA *
T3764	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1979 - METADATA *
T2469	- - - - - - - -	BUCKS LAKE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T338	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T4976	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2470	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999
T311	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T10550	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2600	- - - - - - - -	BUCKS-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2606	- - - - - - - -	CANYON DAM	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T5233	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01OCT1975 - METADATA *
T3316	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T3766	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T2653	- - - - - - - -	CARIBOU-PH	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T2673	- - - - - - - -	CHESTER	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3363	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1957 - METADATA *
T3813	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1957 - METADATA *
T10778	- - - - - - - -	CHESTER FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *

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T2719	- - - - - - - -	DOYLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3400	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3850	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2763	- - - - - - - -	DOYLE-4 SSE	PRECIP-INC	TD3200	1DAY	01JAN1956 - METADATA *
T3414	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1956 - METADATA *
T3864	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1956 - METADATA *
T2801	- - - - - - - -	EAGLE LAKE-STONE RANCH	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T10676	- - - - - - - -	EUREKA BOWL	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T10698	- - - - - - - -	EUREKA LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T2805	- - - - - - - -	FEATHER FALLS	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T5512	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JAN1958 - METADATA *
T10756	- - - - - - - -	FEATHER RIVER MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T2810	- - - - - - - -	FLEMING-FISH & GAME	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T3452	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1960 - METADATA *
T3902	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1960 - METADATA *
T6469	- - - - - - - -	FOUR TREES	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T576	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T6470	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999
T567	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T10552	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9655	- - - - - - - -	FREDONYER PASS #1	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - METADATA *
T10724	- - - - - - - -	FRENCHMAN COVE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T2829	- - - - - - - -	GREENVILLE-R S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3470	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1966 - METADATA *
T3920	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1966 - METADATA *
T10672	- - - - - - - -	GRIZZLY	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T9661	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1960 - METADATA *
T7677	- - - - - - - -	GRIZZLY RIDGE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T848	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T7678	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999
T829	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T10554	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5722	- - - - - - - -	HAMILTON BRANCH FIRE	PRECIP-INC	TD3240	1HOUR	01APR1953 - METADATA *
T10705	- - - - - - - -	HARKNESS FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T8919	- - - - - - - -	HUMBUG	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T940	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T8920	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999
T932	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1981 - METADATA *
T10556	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10770	- - - - - - - -	HUMBUG SUMMIT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10777	- - - - - - - -	HUMBUG SUMMIT 2	SNOW-WEQV	CDEC	IR-DECADE	01JAN1990 - METADATA *
T9691	- - - - - - - -	INDEPENDENCE CAMP	PRECIP-INC	NRCS	1DAY	01JAN1978 - METADATA *
T10795	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T9664	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1940 - 01JAN1990
T9729	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1978 - METADATA *
T10656	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T9767	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1983 - METADATA *
T9790	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1983 - METADATA *
T9670	- - - - - - - -	INDEPENDENCE CAMP PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T9695	- - - - - - - -	INDEPENDENCE CREEK	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T9673	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - 01JAN1990
T9733	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T10658	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T9776	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1990 - METADATA *
T9799	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1990 - METADATA *
T9680	- - - - - - - -	INDEPENDENCE CREEK SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T2875	- - - - - - - -	INSKIP INN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6113	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T3477	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3927	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T10030	- - - - - - - -	KETTLE ROCK	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T1071	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T10661	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T10031	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999
T1062	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1979 - METADATA *
T10558	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2882	- - - - - - - -	LAS PLUMAS	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3484	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3934	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T10736	- - - - - - - -	LETTERBOX	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T2903	- - - - - - - -	LONG VALLEY-INSPECTION ST	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T3504	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1966 - METADATA *
T3954	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1966 - METADATA *

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T6188	- - - - - - - -	LONGVILLE	PRECIP-INC	TD3240	1HOUR	01NOV1959 - METADATA *
T2913	- - - - - - - -	LOYALTON	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T6189	- - - - - - - -	MILFORD	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2931	- - - - - - - -	MILFORD-LAUFMAN RNGR STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10717	- - - - - - - -	MILL CREEK FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10665	- - - - - - - -	MOUNT DYER 1	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10712	- - - - - - - -	MOUNT DYER 2	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T10682	- - - - - - - -	MOUNT HOUGH	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T10742	- - - - - - - -	MOUNT STOVER	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10412	- - - - - - - -	MT MEADOW RESERVOIR	STORAGE	PG&E	1DAY	01JAN1969 - METADATA *
T374	- - - - - - - -	N FORK FEATHER R AT PULGA	FLOW	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T1127	- - - - - - - -	- - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01MAR1998 - METADATA *
T10826	- - - - - - - -	- - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T10785	- - - - - - - -	PILOT PEAK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T13179	- - - - - - - -	PILOT PEAK (DWR)	PRECIP-CUM	CDEC-CD	1HOUR	01NOV1985 - METADATA *
T1382	- - - - - - - -	- - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T13180	- - - - - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01NOV1985 - 01SEP1999
T1372	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1978 - METADATA *
T10561	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T6795	- - - - - - - -	PLUMAS EUREKA STATE	PRECIP-INC	TD3240	1HOUR	01MAY1964 - METADATA *
T2935	- - - - - - - -	PORTOLA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T7211	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01OCT1954 - METADATA *
T3507	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3957	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7742	- - - - - - - -	PORTOLA 2	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2981	- - - - - - - -	PORTOLA-2	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2985	- - - - - - - -	QUINCY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3553	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T4003	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3031	- - - - - - - -	QUINCY-USFS HELIPORT	PRECIP-INC	TD3200	1DAY	01JAN1978 - METADATA *
T3599	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1978 - METADATA *
T4049	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1978 - METADATA *
T15284	- - - - - - - -	RATTLESNAKE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T1489	- - - - - - - -	- - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T15285	- - - - - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999*
T1480	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1981 - METADATA *
T10563	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T10686	- - - - - - - -	ROWLAND CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T9682	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1950 - METADATA *
T7818	- - - - - - - -	SIERRAVILLE R S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T3035	- - - - - - - -	SIERRAVILLE-R S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3603	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T4053	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T9686	- - - - - - - -	SILVER LAKE MEADOWS	SNOW-WEQV	NRCS	IR-DECADE	01JAN1940 - METADATA *
T3081	- - - - - - - -	SLOAT	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *
T8424	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUN1958 - METADATA *
T3083	- - - - - - - -	STANDISH-1 E	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T8477	- - - - - - - -	STIRLING CITY R S	PRECIP-INC	TD3240	1HOUR	01OCT1957 - METADATA *
T3096	- - - - - - - -	STIRLING CITY-R S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3109	- - - - - - - -	SUSANVILLE	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T8972	- - - - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T3649	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1959 - METADATA *
T8983	- - - - - - - -	SUSANVILLE 1 WNW	PRECIP-INC	TD3240	1HOUR	01SEP1952 - METADATA *
T9539	- - - - - - - -	SUSANVILLE STATE RNG	PRECIP-INC	TD3240	1HOUR	01JUN1949 - METADATA *
T3123	- - - - - - - -	SUSANVILLE-MUNICIPAL AP	PRECIP-INC	TD3200	1DAY	01JAN1930 - METADATA *
T3650	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T4099	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1930 - METADATA *
T3187	- - - - - - - -	SUSANVILLE-STATE RNGR STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10691	- - - - - - - -	THREE LAKES	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3191	- - - - - - - -	VINTON	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T3713	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1950 - METADATA *
T4163	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T10000	- - - - - - - -	VINTON 5 SW	PRECIP-INC	DWR-ZIP	1DAY	01JAN1995 - METADATA *
T10763	- - - - - - - -	WARNER CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3235	- - - - - - - -	WENDEL-10 SE	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T3252	- - - - - - - -	WEST BRANCH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3718	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T4167	- - - - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC05.DSS** - *Continued*

```
T3258   - - - - - - - -    WESTWOOD                 PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T9579   - - - - - - - -    - - - - - - - - - - - -  - - - - - -   TD3240    1HOUR      01JUL1948 - METADATA *
T3724   - - - - - - - -    - - - - - - - - - - - -  TEMP-AIR MAX  TD3200    1DAY       01JAN1948 - METADATA *
T4173   - - - - - - - -    - - - - - - - - - - - -  TEMP-AIR MIN  TD3200    1DAY       01JAN1948 - METADATA *
T3264   - - - - - - - -    WESTWOOD-3 WSW           PRECIP-INC    TD3200    1DAY       01JAN1952 - METADATA *
T3730   - - - - - - - -    - - - - - - - - - - - -  TEMP-AIR MAX  TD3200    1DAY       01JAN1952 - METADATA *
T4179   - - - - - - - -    - - - - - - - - - - - -  TEMP-AIR MIN  TD3200    1DAY       01JAN1952 - METADATA *
T10788  - - - - - - - -    YUBA PASS                SNOW-WEQV     CDEC      IR-DECADE  01JAN1930 - METADATA
  *  Record time span has missing periods.
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HECDSS Condensed Catalog of Record Pathnames in File **SAC06.DSS**

Catalog Created on Dec 20, 1999 at 14:23 File Created on Aug 25, 1999
Number of Records: 7072 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	FEATHER R @ VERONA	11389700	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T18	- - - - - - - - - -	11389720	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T31	- - - - - - - - - -	11389740	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA *
T38	- - - - - - - - - -	11389747	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA *
T45	- - - - - - - - - -	11389750	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T64	- - - - - - - - - -	11389775	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T83	- - - - - - - - - -	11389780	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T96	- - - - - - - - - -	11389800	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T110	- - - - - - - - - -	11389950	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T128	- - - - - - - - - -	11390000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T4031	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01JAN1988 - METADATA *
T1	- - - - - - - - - -	11390010	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T212	- - - - - - - - - -	11390200	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T214	- - - - - - - - - -	11390210	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T253	- - - - - - - - - -	11390385	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T258	- - - - - - - - - -	11390390	FLOW	HYDROCD	1DAY	01JAN1938 - METADATA *
T287	- - - - - - - - - -	11390395	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T4	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T298	- - - - - - - - - -	11396329	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T325	- - - - - - - - - -	11396330	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T4162	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T410	- - - - - - - - - -	11406800	STORAGE	HYDROCD	1DAY	01JAN1967 - METADATA *
T368	- - - - - - - - - -	11406810	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T440	- - - - - - - - - -	11406818	STORAGE	HYDROCD	1DAY	01JAN1986 - METADATA *
T442	- - - - - - - - - -	11406819	STORAGE	HYDROCD	1DAY	01JAN1986 - METADATA *
T440	- - - - - - - - - -	11406820	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T465	- - - - - - - - - -	11406821	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T467	- - - - - - - - - -	11406822	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T469	- - - - - - - - - -	11406825	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T444	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1973 - METADATA *
T468	- - - - - - - - - -	11406840	STORAGE	HYDROCD	1DAY	01JAN1971 - METADATA *
T471	- - - - - - - - - -	11406847	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T473	- - - - - - - - - -	11406848	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T494	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1986 - METADATA *
T493	- - - - - - - - - -	11406849	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T496	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1986 - METADATA *
T513	- - - - - - - - - -	11406850	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T498	- - - - - - - - - -	11406870	STORAGE	HYDROCD	1DAY	01JAN1967 - METADATA *
T538	- - - - - - - - - -	11406880	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T569	- - - - - - - - - -	11406890	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T600	- - - - - - - - - -	11406900	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T631	- - - - - - - - - -	11406910	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T662	- - - - - - - - - -	11406920	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T1	- - - - - - - - - -	11406930	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T693	- - - - - - - - - -	11406999	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T718	- - - - - - - - - -	11407000	FLOW	HYDROCD	1DAY	01JAN1901 - METADATA *
T815	- - - - - - - - - -	11407150	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T4163	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T849	- - - - - - - - - -	11407300	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T871	- - - - - - - - - -	11407500	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T908	- - - - - - - - - -	11407501	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T919	- - - - - - - - - -	11407700	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T944	- - - - - - - - - -	11421700	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T956	- - - - - - - - - -	11421701	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T965	- - - - - - - - - -	11424600	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T972	- - - - - - - - - -	11425000	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T1017	- - - - - - - - - -	11425001	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T1386	- - - - - - - - - -	BEALE-AFB	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T1778	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T2114	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T7438	- - - - - - - - - -	BUTTE CR NR DURHAM	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T6987	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10155	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8590	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T7129	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10213	- - - - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA

HECDSS Condensed Catalog of Record Pathnames in File **SAC06.DSS** - *Continued*

T8014	- - - - - - - - -	BUTTE SLOUGH NR MERIDIAN	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T7057	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10157	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9166	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T7199	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10215	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1390	- - - - - - - - -	CENTERVILLE-PH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1780	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2116	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7246	- - - - - - - - -	CHEROKEE CANAL NR RICHVALE	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998*
T6963	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10159	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8386	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T7105	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10217	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2450	- - - - - - - - -	CHICO UNIVERSITY FAR	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1414	- - - - - - - - -	CHICO-UNIVERSITY FARM	PRECIP-INC	TD3200	1DAY	01JAN1905 - METADATA *
T1804	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1906 - METADATA *
T2140	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1906 - METADATA *
T1503	- - - - - - - - -	DE SABLA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1892	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2228	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T10170	- - - - - - - - -	DURHAM	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T10169	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T9753	- - - - - - - - -	FEATHER R @ NICOLAUS	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T9921	- - - - - - - - -	FEATHER R @ YUBA CITY	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T425	- - - - - - - - -	FEATHER R @BOYD'S LANDING	STAGE	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T9562	- - - - - - - - -	FEATHER R NR GRIDLEY	FLOW	DWRC	1DAY	01JAN1975 - METADATA *
T9741	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	STAGE	DWRC	1HOUR	01OCT1998 - METADATA *
T3972	- - - - - - - - -	FOREST RANCH - GARDNER	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T1549	- - - - - - - - -	GRIDLEY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1938	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T2274	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T3983	- - - - - - - - -	KARNAK	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T1557	- - - - - - - - -	LAKE WILENOR	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T7642	- - - - - - - - -	LITTLE CHICO CR DIVERSION NR CHI	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998*
T7011	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10162	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8794	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T7153	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10219	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7834	- - - - - - - - -	LITTLE CHICO CR NR CHICO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1996
T7035	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10164	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8998	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1996*
T7177	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10221	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T375	- - - - - - - - -	LIVE OAK	STAGE	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T341	- - - - - - - - -	LONGBRIDGE	STAGE	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T3994	- - - - - - - - -	M & T RANCH	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T4004	- - - - - - - - -	MAGALIA RESERVOIR DAM	PRECIP-INC	DWR-ZIP	1DAY	01JAN1990 - METADATA *
T1560	- - - - - - - - -	MARYSVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1947	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2283	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1606	- - - - - - - - -	MARYSVILLE-D ST BRIDGE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8218	- - - - - - - - -	MOULTON WEIR TO BUTTE BASIN NR C	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998*
T7081	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10166	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9370	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998*
T7223	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T10223	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1609	- - - - - - - - -	NICOLAUS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2	- - - - - - - - -	OROVILLE	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T3	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T1659	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3056	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01NOV1982 - METADATA *
T2028	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2364	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3250	- - - - - - - - -	OROVILLE DAM	PRECIP-INC	TD3240	1HOUR	01NOV1979 - METADATA *
T3290	- - - - - - - - -	OROVILLE RANGER STN	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1757	- - - - - - - - -	OROVILLE-7 SE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2093	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2429	- - - - - - - - -	- - - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC06.DSS** - *Continued*

T1677	- - - - - - - - -	OROVILLE-BRIDGE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1705	- - - - - - - - -	OROVILLE-DAM	PRECIP-INC	TD3200	1DAY	01JAN1979 - METADATA *
T2046	- - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1979 - METADATA *
T2382	- - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1979 - METADATA *
T1709	- - - - - - - - -	OROVILLE-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2050	- - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1974 - METADATA *
T2386	- - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1974 - METADATA *
T1719	- - - - - - - - -	PARADISE	PRECIP-INC	TD3200	1DAY	01JAN1956 - METADATA *
T2055	- - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1956 - METADATA *
T2391	- - - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1956 - METADATA *
T4012	- - - - - - - - -	PARADISE FS #3	PRECIP-INC	DWR-ZIP	1DAY	01JAN1995 - METADATA *
T9573	- - - - - - - - -	SAC R @ FREMONT WEIR (WEST)	STAGE	DWRC	1HOUR	01OCT1985 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC07.DSS**

Catalog Created on Dec 20, 1999 at 14:24 File Created on Aug 25, 1999
Number of Records: 6013 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T5958	N FORK AMERICAN R	11414190	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T5777	- - - - - - - -	11425416	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T1	- - - - - - - -	11425417	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T6258	- - - - - - - -	11425418	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T6658	- - - - - - - -	11426110	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T6842	- - - - - - - -	11426120	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T6854	- - - - - - - -	11426130	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T6862	- - - - - - - -	11426140	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T6659	- - - - - - - -	11426150	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T6848	- - - - - - - -	11426160	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T532	- - - - - - - -	11426170	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T550	- - - - - - - -	11426180	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T6727	- - - - - - - -	11426190	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T6860	- - - - - - - -	11426195	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T6916	- - - - - - - -	11426196	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T6945	- - - - - - - -	11426200	FLOW	HYDROCD	1DAY	01JAN1955 - METADATA *
T5533	- - - - - - - -	11426400	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T6925	- - - - - - - -	11426500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T6665	- - - - - - - -	11427000	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T5283	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T7121	- - - - - - - -	11427200	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T563	- - - - - - - -	11427400	STORAGE	HYDROCD	1DAY	01JAN1964 - METADATA *
T5600	- - - - - - - -	11427500	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T7265	- - - - - - - -	11427700	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T7330	- - - - - - - -	11427750	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T7371	- - - - - - - -	11427760	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T7400	- - - - - - - -	11427765	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T7412	- - - - - - - -	11427770	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T7100	- - - - - - - -	11427800	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T5647	- - - - - - - -	11427940	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T7503	- - - - - - - -	11427960	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T7532	- - - - - - - -	11428000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T7558	- - - - - - - -	11428001	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T5316	- - - - - - - -	11428300	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T5771	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01NOV1987 - METADATA *
T6119	- - - - - - - -	11428400	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T6558	- - - - - - - -	11428600	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T596	- - - - - - - -	11428700	STORAGE	HYDROCD	1DAY	01JAN1965 - METADATA *
T7648	- - - - - - - -	11428800	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T7620	- - - - - - - -	11428899	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T7693	- - - - - - - -	11429000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T1	- - - - - - - -	11429300	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T5461	- - - - - - - -	11429340	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T628	- - - - - - - -	11429350	STORAGE	HYDROCD	1DAY	01JAN1963 - METADATA *
T10435	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1988 - METADATA *
T7707	- - - - - - - -	11429500	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T5992	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T528	- - - - - - - -	11429600	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T6559	- - - - - - - -	11430000	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T5568	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T6282	- - - - - - - -	11430500	FLOW	HYDROCD	1DAY	01JAN1955 - METADATA *
T7823	- - - - - - - -	11431000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T5907	- - - - - - - -	11431500	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T5925	- - - - - - - -	11431800	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T6355	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T7887	- - - - - - - -	11432000	FLOW	HYDROCD	1DAY	01JAN1946 - METADATA *
T5631	- - - - - - - -	11432500	FLOW	HYDROCD	1DAY	01JAN1945 - METADATA *
T7263	- - - - - - - -	11433040	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T5073	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T5559	- - - - - - - -	11433060	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T5713	- - - - - - - -	11433065	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T7985	- - - - - - - -	11433080	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T5934	- - - - - - - -	11433085	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T5233	- - - - - - - -	11433100	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T8014	- - - - - - - -	11433200	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T7459	- - - - - - - -	11433212	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T8079	- - - - - - - -	11433260	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC07.DSS** - *Continued*

T8102	- - - - - - - -	11433300	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T7982	- - - - - - - -	11433400	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T7506	- - - - - - - -	11433420	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T8154	- - - - - - - -	11433500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T8127	- - - - - - - -	11433799	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T8252	- - - - - - - -	11433800	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA *
T5655	- - - - - - - -	11434000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T5	- - - - - - - -	11446200	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T5512	- - - - - - - -	AUBURN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T7149	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T7136	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7678	- - - - - - - -	AUBURN-DAM PROJECT	PRECIP-INC	TD3200	1DAY	01JAN1972 - METADATA *
T8005	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1972 - METADATA *
T8839	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1972 - METADATA *
T6795	- - - - - - - -	BLODGETT EXP FOREST	PRECIP-INC	TD3240	1HOUR	01OCT1969 - METADATA *
T7534	- - - - - - - -	BLUE CANYON	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T7840	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T6233	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T10729	- - - - - - - -	CARPENTER FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T10071	- - - - - - - -	CENTRAL SIERRA SNOW LAB	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T7873	- - - - - - - -	COOL	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T8765	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1976 - METADATA *
T8770	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1976 - METADATA *
T10681	- - - - - - - -	CSS LAB	PRECIP-INC	NRCS	1DAY	01JAN1981 - METADATA *
T10718	- - - - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	1DAY	01JAN1981 - METADATA *
T10751	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1986 - METADATA *
T10767	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1986 - METADATA *
T10705	- - - - - - - -	DIAMOND CROSSING	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T7843	- - - - - - - -	FORESTHILL-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T8045	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1979 - METADATA *
T8052	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1979 - METADATA *
T8509	- - - - - - - -	GEORGETOWN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6020	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T8638	- - - - - - - -	GEORGETOWN R S	PRECIP-INC	TD3240	1HOUR	01NOV1967 - METADATA *
T5756	- - - - - - - -	GEORGETOWN-9 E	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T769	- - - - - - - -	GREEK STORE	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T7183	- - - - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T749	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T10610	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7185	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *
T9616	- - - - - - - -	HELL HOLE	PRECIP-INC	TD3240	1HOUR	01JAN1954 - METADATA *
T1000	- - - - - - - -	HUYSINK	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T10680	- - - - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T9648	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01AUG1998 - 01SEP1999
T989	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1979 - METADATA *
T10613	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9650	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01AUG1998 - METADATA *
T7148	- - - - - - - -	IOWA HILL	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8769	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T8681	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T10410	- - - - - - - -	LAKE LOIS	SNOW-WEQV	CDEC-CD	1HOUR	01MAY1987 - 01SEP1999*
T1096	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1987 - METADATA *
T10616	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10408	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01MAY1987 - METADATA *
T10675	- - - - - - - -	LOST CORNER MOUNTAIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T3475	- - - - - - - -	MARTIS CR	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01OCT1999
T3436	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1991 - METADATA *
T10529	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9441	- - - - - - - -	MICHIGAN BLUF	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T8565	- - - - - - - -	MICHIGAN-BLUFF	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T182	- - - - - - - -	MID FK AMERICAN R NR OXBOW PH	FLOW	CDEC-WEB	1HOUR	01NOV1997 - METADATA *
T170	- - - - - - - -	- - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T10745	- - - - - - - -	- - - - - - - - - - - - - - - -	STAGE-FLOW	ull)/(nu	(null)	(null)
T10694	- - - - - - - -	MIRANDA CABIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T10698	- - - - - - - -	ONION CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10072	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1930 - METADATA *
T10722	- - - - - - - -	ROBBS VALLEY	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC07.DSS** - *Continued*

T10078	- - - - - - - -	RUBICON #1	SNOW-WEQV	NRCS	IR-DECADE	01JAN1910	- METADATA *
T10125	- - - - - - - -	RUBICON #2	PRECIP-INC	NRCS	1DAY	01JAN1980	- METADATA *
T10087	- - - - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1910	- 01JAN1990
T10181	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980	- METADATA *
T10667	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA	
T10234	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1990	- METADATA *
T10258	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1990	- METADATA *
T10096	- - - - - - - -	RUBICON #2 SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980	- METADATA *
T10709	- - - - - - - -	SIXMILE VALLEY	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930	- METADATA *
T10098	- - - - - - - -	SQUAW VALLEY #2	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950	- METADATA *
T10127	- - - - - - - -	SQUAW VALLEY G.C.	PRECIP-INC	NRCS	1DAY	01JAN1980	- METADATA *
T10183	- - - - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	1DAY	01JAN1980	- METADATA *
T10236	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1990	- METADATA *
T10260	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1990	- METADATA *
T10103	- - - - - - - -	SQUAW VALLEY G.C. SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980	- METADATA *
T10105	- - - - - - - -	SQUAW VALLEY GOLD COAST	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980	- METADATA *
T8567	- - - - - - - -	SQUAW VALLEY-LODGE	PRECIP-INC	TD3200	1DAY	01JAN1955	- METADATA *
T8409	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954	- METADATA *
T5286	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954	- METADATA *
T8586	- - - - - - - -	TAHOE-CITY	PRECIP-INC	TD3200	1DAY	01JAN1930	- METADATA *
T8791	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1930	- METADATA *
T8255	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1930	- METADATA *
T10716	- - - - - - - -	TALBOT CAMP	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T8466	- - - - - - - -	VOLCANOVILLE	PRECIP-INC	TD3200	1DAY	01JAN1953	- METADATA *
T10687	- - - - - - - -	WABENA MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930	- METADATA *
T10106	- - - - - - - -	WARD CREEK #2	SNOW-WEQV	NRCS	IR-DECADE	01JAN1910	- METADATA *
T10122	- - - - - - - -	WARD CREEK #3	PRECIP-INC	NRCS	1DAY	01JAN1978	- METADATA *
T10115	- - - - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960	- 01JAN1990
T10178	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1978	- METADATA *
T10670	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA	
T10238	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1990	- METADATA *
T10262	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1990	- METADATA *
T10119	- - - - - - - -	WARD CREEK #3 SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970	- METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC08.DSS**

Catalog Created on Dec 20, 1999 at 14:25 File Created on Aug 25, 1999
Number of Records: 6942 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T6566	SAC R @ CHICO	11377100	FLOW	HYDROCD	1DAY	01JAN1891 - METADATA *
T3019	- - - - - -	11377200	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T432	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T3537	- - - - - -	11377500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T4217	- - - - - -	11378000	FLOW	HYDROCD	1DAY	01JAN1902 - METADATA *
T3183	- - - - - -	11378500	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T3211	- - - - - -	11378800	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T4273	- - - - - -	11378860	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T4353	- - - - - -	11379000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T4419	- - - - - -	11379500	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T2963	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T3945	- - - - - -	11380000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T4558	- - - - - -	11380500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T3484	- - - - - -	11381000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T4594	- - - - - -	11381500	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T3384	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4647	- - - - - -	11381595	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T4614	- - - - - -	11381990	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T4671	- - - - - -	11382000	FLOW	HYDROCD	1DAY	01JAN1920 - METADATA *
T3726	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01SEP1988 - METADATA *
T4681	- - - - - -	11382090	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T3827	- - - - - -	11382500	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T3506	- - - - - -	11382550	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T3738	- - - - - -	11383000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T3951	- - - - - -	11383500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T3968	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4815	- - - - - -	11383600	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T3343	- - - - - -	11383730	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T23	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T3969	- - - - - -	11383800	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T437	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T4569	- - - - - -	11384000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T4924	- - - - - -	11384340	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T4936	- - - - - -	11384350	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T155	- - - - - -	11387990	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T1371	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4973	- - - - - -	11388000	FLOW	HYDROCD	1DAY	01JAN1954 - METADATA *
T4176	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1989 - METADATA *
T5057	- - - - - -	11388500	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T9716	- - - - - -	BIG CHICO CR @ CHICO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9363	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12885	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11240	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9540	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12999	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4806	- - - - - -	CAMP LASSEN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5335	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01NOV1948 - METADATA *
T5311	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T5321	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3711	- - - - - -	COHASSET	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T3846	- - - - - -	COHASSET-1 NNE	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T4116	- - - - - -	COLYEAR-SPRINGS	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T3790	- - - - - -	CORNING-HOUGHTON RANCH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T12901	- - - - - -	GERBER	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T12900	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T12949	- - - - - -	GERBER DRYLAND	PRECIP-INC	CIMIS	1HOUR	01FEB1995 - METADATA *
T12948	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01FEB1995 - METADATA *
T4409	- - - - - -	HAMILTON-CITY	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T10124	- - - - - -	LINDO CHANNEL NR CHICO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9411	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12887	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11648	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9588	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T13001	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA

HECDSS Condensed Catalog of Record Pathnames in File **SAC08.DSS** - *Continued*

T3461	- - - - - -	LOG SPR	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999*
T138	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1964 - METADATA *
T6033	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1663	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01NOV1995 - 01SEP1999
T3672	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T12995	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3613	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T3561	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T5178	- - - - - -	LOS MOLINOS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T13139	- - - - - -	LOWER LASSEN PEAK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10328	- - - - - -	MUD CR DIVERSION @ CHICO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9435	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12889	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11852	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9612	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T13003	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10532	- - - - - -	MUD CR NR CHICO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9459	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12891	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T12056	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9636	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T13005	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6023	- - - - - -	NORD FS	PRECIP-INC	DWR-ZIP	1DAY	01JAN1994 - METADATA *
T4151	- - - - - -	PASKENTA RANGER STN	PRECIP-INC	TD3240	1HOUR	01DEC1949 - METADATA *
T4323	- - - - - -	PASKENTA-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T4455	- - - - - -	PAYNES CREEK	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T4734	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1978 - METADATA *
T3979	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1978 - METADATA *
T6024	- - - - - -	PHELAN PARROT RANCH	PRECIP-INC	DWR-ZIP	1DAY	01JAN1994 - METADATA *
T10736	- - - - - -	RED BANK CR NR RED BLUFF	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1994
T9483	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12893	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T12260	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1994
T9660	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1976 - METADATA *
T13007	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T386	- - - - - -	RED BLUFF (ALERT)	FLOW	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T1027	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01DEC1996 - METADATA *
T5970	- - - - - -	RED BLUFF 2 SSE	PRECIP-INC	DWR-ZIP	1DAY	01JAN1994 - METADATA *
T5975	- - - - - -	RED BLUFF 20 WSW	PRECIP-INC	DWR-ZIP	1DAY	01JAN1992 - METADATA *
T5026	- - - - - -	RED BLUFF MUNI AP	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4556	- - - - - -	RED BLUFF TRTMNT PLT	PRECIP-INC	TD3240	1HOUR	01FEB1992 - METADATA *
T3007	- - - - - -	RED BLUFF-99 E BRIDGE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5312	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T5322	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5110	- - - - - -	RED BLUFF-MUNICIPAL AP	PRECIP-INC	TD3200	1DAY	01JAN1933 - METADATA *
T4174	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1933 - METADATA *
T4913	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1933 - METADATA *
T11096	- - - - - -	REEDS CR @ WILDER RD NR RED BLUF	FLOW	DWRN	1HOUR	01OCT1984 - 01SEP1996
T9527	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984 - METADATA *
T12895	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T12620	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1984 - 01SEP1996
T9703	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984 - METADATA *
T13009	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9920	- - - - - -	SACRAMENTO R @ HAMILTON CITY	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9387	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12897	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11444	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9564	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T13011	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10892	- - - - - -	SACRAMENTO R @ VINA BRIDGE NR CO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9503	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12899	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T12416	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T9679	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T13013	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC09.DSS**

Catalog Created on Dec 20, 1999 at 14:27 File Created on Aug 25, 1999
Number of Records: 8632 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T675	SAC R @ RED BLUFF	11370000	STORAGE	HYDROCD	1DAY	01JAN1942 - METADATA *
T5658	- - - - - - - -	11370500	FLOW	HYDROCD	1DAY	01JAN1938 - METADATA *
T6784	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T5718	- - - - - - - -	11370700	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T8028	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1993 - METADATA *
T5729	- - - - - - - -	11371000	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T7969	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T5774	- - - - - - - -	11371500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T5777	- - - - - - - -	11371600	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T729	- - - - - - - -	11371700	STORAGE	HYDROCD	1DAY	01JAN1962 - METADATA *
T5812	- - - - - - - -	11372000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T428	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T8066	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T5870	- - - - - - - -	11372050	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T5877	- - - - - - - -	11372060	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T5886	- - - - - - - -	11372080	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T5901	- - - - - - - -	11372200	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T5919	- - - - - - - -	11372325	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T5935	- - - - - - - -	11372330	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T5941	- - - - - - - -	11372350	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T5947	- - - - - - - -	11372700	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T5951	- - - - - - - -	11373200	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T5962	- - - - - - - -	11373300	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T5971	- - - - - - - -	11374000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T429	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T8197	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T6020	- - - - - - - -	11374060	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T6025	- - - - - - - -	11374100	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T6034	- - - - - - - -	11374400	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T6056	- - - - - - - -	11375500	FLOW	HYDROCD	1DAY	01JAN1907 - METADATA *
T6063	- - - - - - - -	11375700	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T6088	- - - - - - - -	11375810	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T6105	- - - - - - - -	11375815	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T6110	- - - - - - - -	11375820	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T6127	- - - - - - - -	11375870	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T6138	- - - - - - - -	11375871	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T6140	- - - - - - - -	11375900	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T6145	- - - - - - - -	11376000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T430	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T8328	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T6203	- - - - - - - -	11376010	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T763	- - - - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1978 - METADATA *
T6205	- - - - - - - -	11376015	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T6222	- - - - - - - -	11376020	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T775	- - - - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1978 - METADATA *
T6224	- - - - - - - -	11376025	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T6242	- - - - - - - -	11376038	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T6246	- - - - - - - -	11376040	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6261	- - - - - - - -	11376043	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T6280	- - - - - - - -	11376046	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T6297	- - - - - - - -	11376050	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6312	- - - - - - - -	11376110	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA *
T6319	- - - - - - - -	11376120	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T6327	- - - - - - - -	11376140	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6342	- - - - - - - -	11376150	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6357	- - - - - - - -	11376160	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6372	- - - - - - - -	11376410	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T6391	- - - - - - - -	11376420	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6406	- - - - - - - -	11376430	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T6425	- - - - - - - -	11376440	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T6440	- - - - - - - -	11376450	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T6448	- - - - - - - -	11376458	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T6468	- - - - - - - -	11376460	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T6484	- - - - - - - -	11376490	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T6486	- - - - - - - -	11376500	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC09.DSS** - *Continued*

T6508	- - - - - - - -	11376550	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T431	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T8459	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T8591	- - - - - - - -	11377100	FLOW	USGS	1HOUR	01OCT1988 - METADATA *
T7859	- - - - - - - -	ANDERSON 9 WNW	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T7850	- - - - - - - -	ANDERSON STP	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T2731	- - - - - - - -	BATTLE CREEK ADR	PRECIP-INC	TD3240	1HOUR	01JUL1971 - METADATA *
T1272	- - - - - - - -	BEEGUM	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3061	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T1952	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1958 - METADATA *
T2340	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1958 - METADATA *
T3063	- - - - - - - -	BRANDY CREEL	PRECIP-INC	TD3240	1HOUR	01OCT1972 - METADATA *
T1280	- - - - - - - -	COLEMAN-FISHERIES STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T9497	- - - - - - - -	COTTONWOOD CR NF NR IGO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1994
T9458	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - -	1DAY	01JAN1975 - METADATA *
T9891	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - -	1HOUR	METADATA
T9653	- - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1994
T9478	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - -	1DAY	01JAN1976 - METADATA *
T9897	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - -	1HOUR	METADATA
T7871	- - - - - - - -	DARRAH FISH HATCHERY	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T3174	- - - - - - - -	FERGUSON RANCH	PRECIP-INC	TD3240	1HOUR	01JUL1967 - METADATA *
T1327	- - - - - - - -	FERGUSON-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T1344	- - - - - - - -	FORWARD MILL	PRECIP-INC	TD3200	1DAY	01JAN1952 - METADATA *
T1351	- - - - - - - -	FRENCH GULCH	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T1953	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1960 - METADATA *
T3409	- - - - - - - -	HARRISON GULCH R S	PRECIP-INC	TD3240	1HOUR	01NOV1948 - METADATA *
T1383	- - - - - - - -	HARRISON GULCH-R S	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1954	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1964 - METADATA *
T2341	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1964 - METADATA *
T1430	- - - - - - - -	HUNTER DISTR-GRAVES RC	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T7883	- - - - - - - -	JELLY	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T6	- - - - - - - -	KESWICK	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T1	- - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T7467	- - - - - - - -	KESWICK RESERVOIR	FLOW-RES IN	USBR	1DAY	01JAN1974 - METADATA *
T7586	- - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1963 - METADATA *
T7893	- - - - - - - -	KILARC PH	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T1442	- - - - - - - -	KILARC-PH	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T1978	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T2365	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T1462	- - - - - - - -	MANZANITA-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1983	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2368	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1508	- - - - - - - -	MINERAL	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T4011	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2029	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2414	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T9941	- - - - - - - -	NEW MANZANITA LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T1555	- - - - - - - -	ONO	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T1589	- - - - - - - -	PLATINA	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T2075	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1962 - METADATA *
T2460	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1962 - METADATA *
T4617	- - - - - - - -	REDDING 5 SSE	PRECIP-INC	TD3240	1HOUR	01JAN1958 - METADATA *
T5026	- - - - - - - -	REDDING FIRE STN 2	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T5141	- - - - - - - -	REDDING MUNICIPAL AP	PRECIP-INC	TD3240	1HOUR	01NOV1986 - METADATA *
T1603	- - - - - - - -	REDDING-FIRE STN 2	PRECIP-INC	TD3200	1DAY	01JAN1931 - METADATA *
T2088	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T2473	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1931 - METADATA *
T1652	- - - - - - - -	REDDING-FIRE STN 4	PRECIP-INC	TD3200	1DAY	01JAN1979 - METADATA *
T2137	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1979 - METADATA *
T2522	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1979 - METADATA *
T1661	- - - - - - - -	REDDING-MUNICIPAL ARPT	PRECIP-INC	TD3200	1DAY	01JAN1986 - METADATA *
T2146	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1986 - METADATA *
T2531	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1986 - METADATA *
T5287	- - - - - - - -	ROUND MOUNTAIN PG &	PRECIP-INC	TD3240	1HOUR	01JUN1970 - METADATA *
T1669	- - - - - - - -	ROUND MOUNTAIN-1 NNE	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T1689	- - - - - - - -	ROUND MOUNTAIN-PG & E	PRECIP-INC	TD3200	1DAY	01JAN1970 - METADATA *
T2154	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T2539	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA *

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T337	- - - - - - - -	SHASTA	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T338	- - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T5630	- - - - - - - -	SHASTA DAM	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T7493	- - - - - - - -	SHASTA DAM (USBR)	FLOW-RES IN	USBR	1DAY	01JAN1943 - METADATA *
T7620	- - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1943 - METADATA *
T7388	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1957 - METADATA *
T7737	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	USBR	1DAY	01JAN1976 - METADATA *
T7905	- - - - - - - -	SHASTA SP	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T1713	- - - - - - - -	SHASTA-DAM	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2161	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T2546	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T7916	- - - - - - - -	SHINGLETOWN 2 NW	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T1759	- - - - - - - -	SHINGLETOWN-2 E	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *
T2208	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1966 - METADATA *
T2593	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1966 - METADATA *
T7927	- - - - - - - -	SUMMIT CITY	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T6236	- - - - - - - -	TRINITY CENTER RANGE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1787	- - - - - - - -	TRINITY CENTER-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1791	- - - - - - - -	TRINITY DAM-VISTA POINT	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T2212	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1959 - METADATA *
T2597	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1959 - METADATA *
T1807	- - - - - - - -	TRINITY RIVER-HATCHERY	PRECIP-INC	TD3200	1DAY	01JAN1974 - METADATA *
T2227	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1974 - METADATA *
T2612	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1974 - METADATA *
T7938	- - - - - - - -	VOLTA PH	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T6385	- - - - - - - -	VOLTA POWER HOUSE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1827	- - - - - - - -	VOLTA-POWER HOUSE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2247	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2632	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1874	- - - - - - - -	WHISKEYTOWN	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T2274	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1958 - METADATA *
T2659	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1958 - METADATA *
T7550	- - - - - - - -	WHISKEYTOWN DAM (USBR)	FLOW-RES IN	USBR	1DAY	01JAN1964 - METADATA *
T7677	- - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1964 - METADATA *
T7431	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1964 - METADATA *
T7761	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	USBR	1DAY	01JAN1976 - METADATA *
T7713	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	USBR	1DAY	01JAN1976 - METADATA *
T1877	- - - - - - - -	WHISKEYTOWN-RESERVOIR	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T2277	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1959 - METADATA *
T2662	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1959 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC10.DSS**

Catalog Created on Dec 20, 1999 at 14:29 File Created on Aug 25, 1999
Number of Records: 4410 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	SAC R @ VERONA	11388700	FLOW	HYDROCD	1DAY	01JAN1947 - METADATA *
T439	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T36	- - - - - - - -	11389000	FLOW	HYDROCD	1DAY	01JAN1938 - METADATA *
T438	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T1767	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T96	- - - - - - - -	11389350	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T1	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T134	- - - - - - - -	11389390	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T136	- - - - - - - -	11389470	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T1	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T175	- - - - - - - -	11389500	FLOW	HYDROCD	1DAY	01JAN1920 - METADATA *
T1860	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T220	- - - - - - - -	11390425	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T303	- - - - - - - -	11390480	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T342	- - - - - - - -	11390489	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T346	- - - - - - - -	11390500	FLOW	HYDROCD	1DAY	01JAN1938 - METADATA *
T2002	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T406	- - - - - - - -	11390600	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T408	- - - - - - - -	11390655	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T425	- - - - - - - -	11390660	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T443	- - - - - - - -	11390672	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T472	- - - - - - - -	11391000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T514	- - - - - - - -	11391001	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T517	- - - - - - - -	11391002	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T242	- - - - - - - -	11391020	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T3	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T276	- - - - - - - -	11391050	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T4269	- - - - - - - -	BUTTE SLOUGH @ OUTFALL GATES NR	FLOW	DWRN	1DAY	01JAN1975 - METADATA *
T5664	- - - - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1992 - 01SEP1996
T4403	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1992 - METADATA *
T6332	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T400	- - - - - - - -	BYRON JACKSON PUMPS	STAGE	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T2188	- - - - - - - -	CLARKS VALLEY-MUDD	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T950	- - - - - - - -	CLARKS VALLEY-MUDD RANCH	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T6245	- - - - - - - -	COLUSA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T6244	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T4452	- - - - - - - -	COLUSA BASIN DRAIN @ HIGHWAY 20	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T4221	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6214	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5064	- - - - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T4338	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6334	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4656	- - - - - - - -	COLUSA WEIR TO BUTTE BASIN NR CO	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T4245	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6216	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5268	- - - - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T4362	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6336	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T972	- - - - - - - -	COLUSA-2 SSW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1220	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1421	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T967	- - - - - - - -	COLUSA-BRIDGE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1219	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1419	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T1018	- - - - - - - -	DUNNIGAN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2199	- - - - - - - -	FRUTO 2	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T2206	- - - - - - - -	KIRKVILLE	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T316	- - - - - - - -	MERIDIAN PUMPS	STAGE	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T6269	- - - - - - - -	ORLAND	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T1049	- - - - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1948 - METADATA *
T6268	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1266	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1467	- - - - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2216	- - - - - - - -	ROBBINS	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T1003	- - - - - - - -	S FORK WILLOW CREEK NEAR FRUTO	STAGE	CDEC-WEB	1HOUR	01JAN1999 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC10.DSS** - *Continued*

T5472	- - - - - - - -	SACRAMENTO R @ KNIGHTS LANDING	STAGE	DWRN	1HOUR	01OCT1982 - 01SEP1998
T4386	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1982 - METADATA *
T6338	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4860	- - - - - - - -	SACRAMENTO R @ ORD FERRY	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T4290	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6218	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5712	- - - - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T4408	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6340	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1095	- - - - - - - -	SAINT JOHN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2227	- - - - - - - -	TISDALE BYPASS	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T2238	- - - - - - - -	TISDALE WEIR	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T4314	- - - - - - - -	TISDALE WEIR TO SUTTER BYPASS	FLOW	DWRN	1DAY	01JAN1975 - METADATA *
T5916	- - - - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998 *
T4432	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T6342	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1112	- - - - - - - -	WILLIAMS	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T1620	- - - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01SEP1952 - METADATA *
T1312	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1951 - METADATA *
T1513	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1951 - METADATA *
T2054	- - - - - - - -	WILLIAMS CAA AIRPORT	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1150	- - - - - - - -	WILLIAMS-CAA AIRPORT	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1350	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T1551	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T2105	- - - - - - - -	WILLOWS USBR	PRECIP-INC	TD3240	1HOUR	01JAN1967 - METADATA *
T1156	- - - - - - - -	WILLOWS-6 W	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1356	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1557	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1202	- - - - - - - -	WILLOWS-USBR	PRECIP-INC	TD3200	1DAY	01JAN1967 - METADATA *
T1402	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1967 - METADATA *
T1603	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1967 - METADATA *
T6221	- - - - - - - -	ZAMORA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T6220	- - - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC11.DSS**

Catalog Created on Dec 20, 1999 at 14:30 File Created on Aug 25, 1999
Number of Records: 10290 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	SAC R @ MOUTH	11336580	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T31	- - - - - -	11336585	FLOW	HYDROCD	1DAY	01JAN1995 - METADATA *
T6526	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01DEC1995 - METADATA *
T246	- - - - - -	11391021	FLOW	HYDROCD	1DAY	01JAN1946 - METADATA *
T791	- - - - - -	11425300	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T34	- - - - - -	11425310	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T787	- - - - - -	11425330	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T789	- - - - - -	11425410	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T52	- - - - - -	11425415	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T69	- - - - - -	11425500	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T6570	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T138	- - - - - -	11426000	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T21	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T8237	- - - - - -	11447500	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T226	- - - - - -	11447503	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T228	- - - - - -	11447504	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T230	- - - - - -	11447505	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T232	- - - - - -	11447506	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T234	- - - - - -	11447507	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T239	- - - - - -	11447509	FLOW	HYDROCD	1DAY	01JAN1976 - METADATA *
T241	- - - - - -	11447650	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T6713	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1989 - METADATA *
T387	- - - - - -	11453000	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T6971	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T446	- - - - - -	11453170	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T448	- - - - - -	11453200	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T465	- - - - - -	11453500	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T515	- - - - - -	11453550	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T524	- - - - - -	11453570	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T532	- - - - - -	11453580	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T541	- - - - - -	11453600	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T562	- - - - - -	11453700	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T567	- - - - - -	11453900	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T817	- - - - - -	- - - - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1956 - METADATA *
T569	- - - - - -	11454000	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T7024	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T638	- - - - - -	11454100	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T648	- - - - - -	11454210	FLOW	HYDROCD	1DAY	01JAN1996 - METADATA *
T650	- - - - - -	11454500	FLOW	HYDROCD	1DAY	01JAN1905 - METADATA *
T677	- - - - - -	11455000	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T11520	- - - - - -	AMERICAN R @ SAC	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T12925	- - - - - -	ANGWIN	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T12924	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T3725	- - - - - -	ANGWIN PAC UNION COL	PRECIP-INC	TD3240	1HOUR	01NOV1967 - METADATA *
T4456	- - - - - -	ATLAS ROAD BROWN	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1498	- - - - - -	ATLAS-ROAD BROWN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8009	- - - - - -	BERRYESSA	FLOW-RES IN	USBR	1DAY	01JAN1975 - METADATA *
T8034	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1975 - METADATA *
T7984	- - - - - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1975 - METADATA *
T1502	- - - - - -	BERRYESSA-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *
T2368	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1957 - METADATA *
T3046	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1957 - METADATA *
T1516	- - - - - -	BRANNAN-ISLAND	PRECIP-INC	TD3200	1DAY	01JAN1967 - METADATA *
T2382	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1967 - METADATA *
T3060	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1967 - METADATA *
T12099	- - - - - -	BRYTE	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T12098	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1527	- - - - - -	CALISTOGA	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2393	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T3071	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T4701	- - - - - -	CAZADERO	PRECIP-INC	TD3240	1HOUR	01DEC1996 - METADATA *
T1574	- - - - - -	CLARKSBURG	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2413	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3091	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC11.DSS** - *Continued*

T10184	- - - - - -	COLUSA BASIN DRAIN @ KNIGHTS LAN	FLOW	DWRN	1DAY	01JAN1975 - METADATA *
T10228	- - - - - -	- - - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1996
T10206	- - - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T12053	- - - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11887	- - - - - -	DAVIS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T11886	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T4726	- - - - - -	DAVIS 2 WSW EXP FARM	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1600	- - - - - -	DAVIS-2 WSW EXP FARM	PRECIP-INC	TD3200	1DAY	01JAN1916 - METADATA *
T2439	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1916 - METADATA *
T3117	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1916 - METADATA *
T11937	- - - - - -	DIXON	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T11936	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1016	- - - - - -	EAGLES NEST ROAD	STAGE	CDEC-WEB	1HOUR	01OCT1996 - METADATA *
T1678	- - - - - -	FAIRFIELD	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T5332	- - - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2517	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1950 - METADATA *
T3195	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T5615	- - - - - -	FAIRFIELD 3 NNE	PRECIP-INC	TD3240	1HOUR	01JAN1972 - METADATA *
T12123	- - - - - -	HASTINGS TRACT	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T12122	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1725	- - - - - -	KELLOGG	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2561	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T3239	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *
T1751	- - - - - -	KNIGHTS LANDING	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1762	- - - - - -	KNIGHTS VALLEY	PRECIP-INC	TD3200	1DAY	01JAN1963 - METADATA *
T2562	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T3241	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T1769	- - - - - -	LAKE SOLANO	PRECIP-INC	TD3200	1DAY	01JAN1975 - METADATA *
T5939	- - - - - -	- - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01OCT1962 - METADATA *
T2569	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1975 - METADATA *
T3248	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1975 - METADATA *
T1788	- - - - - -	MARKLEY-COVE	PRECIP-INC	TD3200	1DAY	01JAN1970 - METADATA *
T2588	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T3267	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA *
T1812	- - - - - -	MIDDLETOWN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2612	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1969 - METADATA *
T3291	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *
T1861	- - - - - -	MIDDLETOWN-4 WSW	PRECIP-INC	TD3200	1DAY	01JAN1962 - METADATA *
T10502	- - - - - -	MINER SL @ FIVE POINTS	STAGE	DWRC	1HOUR	01MAR1999 - METADATA *
T1862	- - - - - -	MONTICELLO-DAM	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *
T2613	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1957 - METADATA *
T3292	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1957 - METADATA *
T1109	- - - - - -	MORRISON CREEK @ FLORIN ROAD	STAGE	CDEC-WEB	1HOUR	01JAN1998 - METADATA *
T1110	- - - - - -	MORRISON CREEK @ MACK ROAD	STAGE	CDEC-WEB	1HOUR	01JAN1998 - METADATA *
T1876	- - - - - -	NAPA-RIVER TELEMETERI	PRECIP-INC	TD3200	1DAY	01JAN1966 - METADATA *
T11911	- - - - - -	NICOLAUS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T450	- - - - - -	- - - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01JAN1984 - METADATA *
T11910	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1877	- - - - - -	NICOLAUS-2	PRECIP-INC	TD3200	1DAY	01JAN1962 - METADATA *
T8420	- - - - - -	PLEASANT GROVE - 1617	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T8426	- - - - - -	- - - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T11935	- - - - - -	PUTAH CREEK	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T11934	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1909	- - - - - -	RIO VISTA	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2627	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1949 - METADATA *
T3306	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T8417	- - - - - -	ROSEVILLE F.S. #2 - 1602	PRECIP-CUM	ALERT	1HOUR	01DEC1996 - METADATA *
T8423	- - - - - -	- - - - - - - - - - - - - - - - -	PRECIP-INC	ALERT	1HOUR	01DEC1996 - METADATA *
T10508	- - - - - -	SAC R @ BRYTE LAB	STAGE	DWRC	1HOUR	01AUG1987 - METADATA *
T11376	- - - - - -	SAC R @ FREMONT WEIR (EAST)	STAGE	DWRC	1HOUR	01OCT1992 - METADATA *
T10636	- - - - - -	SAC R @ RIO VISTA BR	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T11220	- - - - - -	SAC R @ SAC	STAGE	DWRC	1HOUR	01OCT1996 - METADATA *
T11022	- - - - - -	SAC R @ SNODGRASS SL	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T10835	- - - - - -	SAC R @ WALNUT GROVE	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T11256	- - - - - -	SAC R ABOVE SAC WEIR	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T6980	- - - - - -	SACRAMENTO WSO CITY	PRECIP-INC	TD3240	1HOUR	01JAN1948 - METADATA *
T1935	- - - - - -	SACRAMENTO-EXECUTIVE ARPT	PRECIP-INC	TD3200	1DAY	01JAN1941 - METADATA *
T2631	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1941 - METADATA *
T3310	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1941 - METADATA *
T6374	- - - - - -	SACRAMENTO-EXECUTIVECA.	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1988	- - - - - -	SACRAMENTO-WSO CITY	PRECIP-INC	TD3200	1DAY	01JAN1888 - METADATA *
T2684	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1888 - METADATA *
T3363	- - - - - -	- - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1888 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC11.DSS** - *Continued*

T2094	- - - - - -	SAINT HELENA	PRECIP-INC	TD3200	1DAY	01JAN1931 - METADATA *
T2790	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T3469	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1931 - METADATA *
T7592	- - - - - -	SAINT HELENA 6 NE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2157	- - - - - -	SAINT HELENA-6 NE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2162	- - - - - -	TRAVIS-FIELD AFB	PRECIP-INC	TD3200	1DAY	01JAN1962 - METADATA *
T12149	- - - - - -	TWITCHELL ISLAND	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T12148	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T2165	- - - - - -	VACAVILLE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2853	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3532	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2212	- - - - - -	WALNUT GROVE	PRECIP-INC	TD3200	1DAY	01JAN1952 - METADATA *
T2899	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1952 - METADATA *
T3578	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1952 - METADATA *
T12173	- - - - - -	WINTERS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T2222	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1947 - METADATA *
T12172	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T2909	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3588	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2269	- - - - - -	WOODLAND-1 WNW	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2955	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T3634	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T11460	- - - - - -	YOLO BP @ LIBERTY ISLAND(C)	STAGE	DWRC	1HOUR	01OCT1994 - METADATA *
T11688	- - - - - -	YOLO BYPASS NR LISBON	STAGE	DWRC	1HOUR	01OCT1985 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC12.DSS**

Catalog Created on Dec 20, 1999 at 14:33 File Created on Aug 25, 1999
Number of Records: 18739 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T7166	SHASTA	11339000	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T7173	- - -	11339500	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T7247	- - -	11340500	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T1	- - -	11341368	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T3	- - -	11341370	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T5	- - -	11341400	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T34	- - -	11341500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T47	- - -	11342000	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T9900	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T101	- - -	11342500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T126	- - -	11343000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T128	- - -	11343500	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T143	- - -	11344000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T162	- - -	11344500	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T166	- - -	11345500	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T10030	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T236	- - -	11346000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T240	- - -	11346500	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T243	- - -	11347500	FLOW	HYDROCD	1DAY	01JAN1918 - METADATA *
T257	- - -	11348000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T261	- - -	11348200	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T268	- - -	11348500	FLOW	HYDROCD	1DAY	01JAN1903 - METADATA *
T10152	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T340	- - -	11349000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T363	- - -	11349500	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T367	- - -	11350500	FLOW	HYDROCD	1DAY	01JAN1903 - METADATA *
T403	- - -	11351000	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T406	- - -	11351500	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T858	- - -	11351600	STORAGE	HYDROCD	1DAY	01JAN1991 - METADATA *
T409	- - -	11351700	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA *
T416	- - -	11351946	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T420	- - -	11351948	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T424	- - -	11351950	FLOW	HYDROCD	1DAY	01JAN1992 - METADATA *
T430	- - -	11352000	FLOW	HYDROCD	1DAY	01JAN1903 - METADATA *
T471	- - -	11352500	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T484	- - -	11352900	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T489	- - -	11353500	FLOW	HYDROCD	1DAY	01JAN1920 - METADATA *
T496	- - -	11353600	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T501	- - -	11353700	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T511	- - -	11354100	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T863	- - -	- - - - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1974 - METADATA *
T513	- - -	11354200	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T537	- - -	11354300	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T539	- - -	11354500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T544	- - -	11355000	FLOW	HYDROCD	1DAY	01JAN1920 - METADATA *
T578	- - -	11355010	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T10282	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T602	- - -	11355500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T10410	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T672	- - -	11356500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T675	- - -	11357000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T677	- - -	11358000	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T679	- - -	11358010	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA *
T687	- - -	11358020	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T696	- - -	11358500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T702	- - -	11358700	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T717	- - -	11358800	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T736	- - -	11359100	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T753	- - -	11359300	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T772	- - -	11359500	FLOW	HYDROCD	1DAY	01JAN1920 - METADATA *
T775	- - -	11360000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T777	- - -	11360500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T807	- - -	11360599	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T837	- - -	11361400	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T884	- - -	- - - - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1973 - METADATA *
T839	- - -	11362000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T873	- - -	11362300	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC12.DSS** - *Continued*

T898	- - -	11362400	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA	*
T906	- - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1973 - METADATA	*
T900	- - -	11362500	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA	*
T972	- - -	11362600	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA	*
T928	- - -	11362650	STORAGE	HYDROCD	1DAY	01JAN1986 - METADATA	*
T1000	- - -	11362700	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA	*
T1024	- - -	11362800	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA	*
T1031	- - -	11362880	FLOW	HYDROCD	1DAY	01JAN1992 - METADATA	*
T10482	- - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1993 - METADATA	*
T1037	- - -	11362890	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA	*
T10551	- - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1993 - METADATA	*
T1044	- - -	11362900	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA	*
T1051	- - -	11362940	FLOW	HYDROCD	1DAY	01JAN1992 - METADATA	*
T10621	- - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1993 - METADATA	*
T1057	- - -	11362945	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA	*
T10685	- - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1993 - METADATA	*
T1062	- - -	11362950	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA	*
T1069	- - -	11363000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA	*
T1157	- - -	11363500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA	*
T1164	- - -	11363910	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA	*
T11867	- - -	- - - - - - - - - - - - - - - -	- - - - - -	PG&E	1HOUR	01MAR1995	
T13819	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA	*
T11877	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T1197	- - -	11363920	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA	*
T937	- - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1973 - METADATA	*
T1199	- - -	11363930	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA	*
T1232	- - -	11364000	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA	*
T1245	- - -	11364100	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA	*
T959	- - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1973 - METADATA	*
T1247	- - -	11364150	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA	*
T11866	- - -	- - - - - - - - - - - - - - - -	- - - - - -	PG&E	1HOUR	01MAR1995	
T14011	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1969 - METADATA	*
T11878	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T981	- - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1974 - METADATA	*
T1272	- - -	11364155	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA	*
T1279	- - -	11364200	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA	*
T1289	- - -	11364250	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA	*
T1296	- - -	11364300	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA	*
T983	- - -	11364700	STORAGE	HYDROCD	1DAY	01JAN1974 - METADATA	*
T1306	- - -	11364800	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA	*
T1332	- - -	11365000	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA	*
T1386	- - -	11365500	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA	*
T1409	- - -	11366000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA	*
T1412	- - -	11366500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA	*
T1446	- - -	11367000	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA	*
T1453	- - -	11367200	FLOW	HYDROCD	1DAY	01JAN1955 - METADATA	*
T1458	- - -	11367300	FLOW	HYDROCD	1DAY	01JAN1954 - METADATA	*
T1464	- - -	11367500	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA	*
T1532	- - -	11367700	FLOW	HYDROCD	1DAY	01JAN1954 - METADATA	*
T1538	- - -	11367720	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA	*
T1004	- - -	11367740	STORAGE	HYDROCD	1DAY	01JAN1973 - METADATA	*
T1571	- - -	11367760	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA	*
T1604	- - -	11367800	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA	*
T1638	- - -	11368000	FLOW	HYDROCD	1DAY	01JAN1945 - METADATA	*
T1691	- - -	11368500	FLOW	HYDROCD	1DAY	01JAN1902 - METADATA	*
T1698	- - -	11369000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA	*
T1732	- - -	11369500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA	*
T505	- - -	ADIN MOUNTAIN	PRECIP-CUM	CDEC-CD	1HOUR	01JUN1999 - METADATA	*
T509	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUN1999 - 01SEP1999	
T1	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984 - METADATA	*
T14125	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T513	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUN1999 - METADATA	*
T14473	- - -	ADIN MOUNTAINS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA	*
T10970	- - -	- - - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1930 - METADATA	*
T11074	- - -	ADIN MTN	PRECIP-INC	NRCS	1DAY	01JAN1984 - METADATA	*
T11162	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	1DAY	01JAN1984 - METADATA	*
T11259	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1989 - METADATA	*
T11290	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1989 - METADATA	*
T10977	- - -	ADIN MTN SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA	*
T2971	- - -	ADIN-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA	*
T4192	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA	*
T5016	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA	*

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T14067	- - -	ALTURAS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T3017	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	TD3200	1DAY	01JAN1931 - METADATA *
T6569	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T14066	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T4231	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T5055	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1931 - METADATA *
T11636	- - -	ALTURAS 7 ESE	PRECIP-INC	DWR-ZIP	1DAY	01JAN1964 - METADATA *
T13003	- - -	ASH CR @ ADIN	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T12909	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T14039	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T13411	- - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T12957	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1976 - METADATA *
T14181	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T14429	- - -	ASH CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T10979	- - -	BARBER CREEK	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950 - METADATA *
T11022	- - -	BARLEY CAMP AM	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T11024	- - -	BEAR FLAT MEADOW AM	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950 - METADATA *
T3080	- - -	BIEBER	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T7175	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T1470	- - -	BIG FLAT	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T99	- - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1985 - METADATA *
T1471	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T93	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T14128	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T1472	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T2847	- - -	BLACKS MOUNTAIN	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1987 - METADATA *
T14454	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T2850	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	CDEC-CD	1HOUR	01OCT1987 - 01SEP1999
T215	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1987 - METADATA *
T14131	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T2853	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1987 - METADATA *
T3084	- - -	BLACKS MOUNTAIN-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T14448	- - -	BLUE LAKE RANCH	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T291	- - -	BONANZA KING	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T3331	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01SEP1998 - 01SEP1999
T282	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1982 - METADATA *
T14134	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T3332	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998 - METADATA *
T14417	- - -	BREWER CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T3098	- - -	BUCKHORN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3143	- - -	BURNEY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4294	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T5118	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T13207	- - -	BURNEY CR @ PARK AVE NR BURNEY	FLOW	DWRN	1HOUR	01OCT1981 - 01SEP1998
T12933	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T14041	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T13615	- - -	- - - - - - - - - - - - - - - -	STAGE	DWRN	1HOUR	01OCT1981 - 01SEP1998
T12980	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1976 - METADATA *
T14183	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T14489	- - -	BURNEY SPRINGS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T11029	- - -	CAMAS CREEK #1	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - METADATA *
T11035	- - -	CAMAS CREEK #2	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T11847	- - -	CAMAS CREEK #3	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T3188	- - -	CANBY-11SW	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T4339	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T5163	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T3202	- - -	CANBY-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4341	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T5165	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA *
T11672	- - -	CASTLE CRAGS SP	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T4564	- - -	CEDAR PASS	PRECIP-CUM	CDEC-CD	1HOUR	01JUN1999 - METADATA *
T11062	- - -	- - - - - - - - - - - - - - - -	PRECIP-INC	NRCS	1DAY	01JAN1978 - METADATA *
T14441	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4567	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	CDEC-CD	1HOUR	01JUN1999 - 01SEP1999
T403	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T14137	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T10984	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	NRCS	IR-DECADE	01JAN1930 - 01JAN1990
T11150	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1978 - METADATA *
T14305	- - -	- - - - - - - - - - - - - - - -	- - - - - - -	- - - -	IR-DECADE	METADATA
T4570	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUN1999 - METADATA *
T11261	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1989 - METADATA *
T11292	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1989 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC12.DSS** - *Continued*

T10991	- - -	CEDAR PASS SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970	- METADATA *
T3247	- - -	CEDARVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4363	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947	- METADATA *
T5185	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947	- METADATA *
T11849	- - -	COX FLAT AM	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950	- METADATA *
T3293	- - -	DANA-2 SE AP	PRECIP-INC	TD3200	1DAY	01JAN1959	- METADATA *
T3311	- - -	DAVIS CREEK	PRECIP-INC	TD3200	1DAY	01JAN1959	- METADATA *
T4410	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1967	- METADATA *
T5232	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1967	- METADATA *
T3322	- - -	DAY	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T7781	- - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948	- METADATA *
T14435	- - -	DEAD HORSE CANYON	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T222	- - -	DELTA	FLOW	CDEC-WEB	1HOUR	01JUL1991	- METADATA *
T3327	- - -	- - - - - - - - - - - - - - - -	PRECIP-INC	TD3200	1DAY	01JAN1975	- METADATA *
T8387	- - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01NOV1975	- METADATA *
T592	- - -	- - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01NOV1989	- METADATA *
T14513	- - -	- - - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)	
T11066	- - -	DISMAL SWAMP	PRECIP-INC	NRCS	1DAY	01JAN1980	- METADATA *
T11154	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	1DAY	01JAN1980	- METADATA *
T11263	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1989	- METADATA *
T11294	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1989	- METADATA *
T10994	- - -	DISMAL SWAMP #2	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980	- METADATA *
T10996	- - -	DISMAL SWAMP - AERIAL MARKER(DIS	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950	- METADATA *
T11000	- - -	DISMAL SWAMP PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980	- METADATA *
T3331	- - -	DUNSMUIR-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T4411	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1972	- METADATA *
T5233	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1972	- METADATA *
T3363	- - -	DUNSMUIR-TREATMENT PLANT	PRECIP-INC	TD3200	1DAY	01JAN1978	- METADATA *
T4414	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1978	- METADATA *
T5236	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1978	- METADATA *
T11002	- - -	EAGLE PEAK	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930	- METADATA *
T3379	- - -	FALL RIVER-MILLS INTAKE	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T4430	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5252	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T3402	- - -	FORT BIDWELL	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4442	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947	- METADATA *
T5264	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947	- METADATA *
T3448	- - -	GIBSON HIGHWAY-MNT STN	PRECIP-INC	TD3200	1DAY	01JAN1965	- METADATA *
T11683	- - -	GIBSON HMS	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988	- METADATA *
T3461	- - -	GOOSE LAKE-WEST	PRECIP-INC	TD3200	1DAY	01JAN1958	- METADATA *
T14405	- - -	GRAY ROCK LAKES	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T8416	- - -	HAT CREEK RANGER STN	PRECIP-INC	TD3240	1HOUR	01JUL1948	- METADATA *
T3474	- - -	HAT CREEK-PH 1	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T4489	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5311	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T3470	- - -	HAT CREEK-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T3466	- - -	HATCHET MOUNTAIN-MNTNC STN	PRECIP-INC	TD3200	1DAY	01JAN1957	- METADATA *
T8415	- - -	HIGHLAND LAKES	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985	- METADATA *
T876	- - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987	- METADATA *
T8416	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985	- 01SEP1999
T872	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984	- METADATA *
T14141	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T8417	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985	- METADATA *
T3521	- - -	JESS VALLEY	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4535	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5357	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T3567	- - -	LAKE CITY	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4581	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5403	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T3580	- - -	LAKESHORE-2	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4594	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5416	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T5966	- - -	LAKEVIEW 2 NNW	PRECIP-INC	TD3240	1HOUR	01OCT1948	- METADATA *
T4029	- - -	LAKEVIEW-2 NNW	PRECIP-INC	TD3200	1DAY	01JAN1927	- METADATA *
T4853	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1927	- METADATA *
T5677	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1927	- METADATA *
T3605	- - -	LITTLE VALLEY	PRECIP-INC	TD3200	1DAY	01JAN1960	- METADATA *
T11694	- - -	LOOKOUT 3 WSW	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988	- METADATA *
T3620	- - -	LOOKOUT-3 WSW	PRECIP-INC	TD3200	1DAY	01JAN1962	- METADATA *
T11706	- - -	LOOKOUT-SHAW	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988	- METADATA *
T3636	- - -	MADELINE	PRECIP-INC	TD3200	1DAY	01JAN1959	- METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC12.DSS** - *Continued*

T3653	- - -	MC CLOUD	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8780	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T4619	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T5441	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T9106	- - -	MC CLOUD RANGER STN	PRECIP-INC	TD3240	1HOUR	01AUG1975 - METADATA *
T14043	- - -	MCARTHUR	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T14042	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T11716	- - -	MCARTHUR - BURNEY FALLS SP	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T68	- - -	MCCLOUD R ABV SHASTA LK	FLOW	CDEC-WEB	1HOUR	01AUG1991 - METADATA *
T735	- - -	- - - - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01NOV1989 - METADATA *
T14514	- - -	- - - - - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T14482	- - -	MCELROY PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T11164	- - -	MEDICINE LAKE	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T1149	- - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T14460	- - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T11165	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T1144	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984 - METADATA *
T14145	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11166	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T1185	- - -	MIDDLE BOULDER 3	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T10683	- - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01NOV1986 - 01SEP1999*
T1173	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1986 - METADATA *
T14148	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10680	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01NOV1986 - METADATA *
T9168	- - -	MONTGOMERY CREEK 2 S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T11722	- - -	MONTGOMERY CREEK 6N	PRECIP-INC	DWR-ZIP	1DAY	01JAN1988 - METADATA *
T3699	- - -	MONTGOMERY CREEK-2 SSW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3710	- - -	MOUNT SHASTA	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T9323	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01AUG1948 - METADATA *
T14385	- - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4666	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T5488	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3703	- - -	MOUNT SHASTA-SKI BOWL	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T4665	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1964 - METADATA *
T5487	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1964 - METADATA *
T11008	- - -	MT BIDWELL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T33	- - -	MUCK VALLEY DIVERSION (PG&E)	STAGE	CDEC-WEB	1HOUR	01MAY1996 - METADATA *
T11911	- - -	MUMBO BASIN	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T1256	- - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T11912	- - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T1252	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984 - METADATA *
T14152	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11913	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T3757	- - -	NEW PINE-CREEK 2 E	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T14392	- - -	NORTH FORK SACRAMENTO	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T11011	- - -	NORTH STAR	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T11985	- - -	NUBIEBER	PRECIP-INC	DWR-ZIP	1DAY	01JAN1994 - METADATA *
T11038	- - -	PATTON MEADOWS AM	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - METADATA *
T12684	- - -	PETERSON FLAT	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T1347	- - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T12685	- - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T1342	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T14155	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T12686	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T3759	- - -	PIT RIVER-P H 1	PRECIP-INC	TD3200	1DAY	01JAN1972 - METADATA *
T4712	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1972 - METADATA *
T5534	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1972 - METADATA *
T3781	- - -	PIT RIVER-P H 5	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4717	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1976 - METADATA *
T5539	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1949 - METADATA *
T3827	- - -	POTTERS SAWMILL	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T11087	- - -	QUARTZ MOUNTAIN	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T11042	- - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1920 - 01JAN1990
T11202	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T14288	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T11238	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1983 - METADATA *
T11317	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1983 - METADATA *
T11050	- - -	QUARTZ MOUNTAIN PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T11052	- - -	QUARTZ MTN SUM PP&L (DISC)	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - METADATA *
T14982	- - -	RED ROCK MOUNTN	SNOW-WEQV	CDEC-CD	1HOUR	01FEB1987 - 01SEP1999
T1512	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1986 - METADATA *
T14158	- - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T14984	- - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01FEB1987 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC12.DSS** - *Continued*

T11013	- - -	RESERVATION CREEK	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950	- METADATA *
T11057	- - -	ROGGER MEADOW AM	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970	- METADATA *
T4096	- - -	ROUND GROVE	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4920	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5744	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T9928	- - -	ROUND MOUNTAIN 1 NNE	PRECIP-INC	TD3240	1HOUR	01JUL1961	- METADATA *
T1599	- - -	SAND FLAT	PRECIP-INC	CDEC-CD	1DAY	01JAN1988	- METADATA *
T14399	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T16289	- - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1998	- 01SEP1999
T1591	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983	- METADATA *
T14161	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T16290	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998	- METADATA *
T15791	- - -	SCOTT MOUNTAIN	PRECIP-CUM	CDEC-CD	1HOUR	01DEC1985	- METADATA *
T1667	- - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987	- METADATA *
T15793	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01DEC1985	- 01SEP1999
T1664	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1985	- METADATA *
T14164	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T15795	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01DEC1985	- METADATA *
T16315	- - -	SHIMMY LAKE	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985	- 01SEP1999*
T1692	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1985	- METADATA *
T14167	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T16317	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985	- METADATA *
T1742	- - -	SLATE CREEK	PRECIP-INC	CDEC-CD	1DAY	01JAN1988	- METADATA *
T14411	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T17873	- - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1998	- 01SEP1999
T1734	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1982	- METADATA *
T14170	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T17874	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998	- METADATA *
T1789	- - -	SNOW MOUNTAIN	PRECIP-INC	CDEC-CD	1DAY	01JAN1989	- METADATA *
T14477	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930	- METADATA *
T17899	- - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1998	- 01SEP1999
T1782	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983	- METADATA *
T14173	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T17900	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998	- METADATA *
T3829	- - -	SQUAW CREEK-GS	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T11017	- - -	STATE LINE AM (CA)	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950	- METADATA *
T18154	- - -	STOUTS MEADOW	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985	- METADATA *
T1871	- - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987	- METADATA *
T14423	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T18155	- - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985	- 01SEP1999*
T1866	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983	- METADATA *
T14176	- - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA	
T18156	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985	- METADATA *
T11089	- - -	STRAWBERRY	PRECIP-INC	NRCS	1DAY	01JAN1980	- METADATA *
T11204	- - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	1DAY	01JAN1980	- METADATA *
T11245	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1988	- METADATA *
T11324	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1988	- METADATA *
T11060	- - -	STRAWBERRY SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980	- METADATA *
T3832	- - -	TENNANT	PRECIP-INC	TD3200	1DAY	01JAN1952	- METADATA *
T10036	- - -	TERMO 1 E	PRECIP-INC	TD3240	1HOUR	01JUL1948	- METADATA *
T3876	- - -	TERMO BRIN MARR	PRECIP-INC	TD3200	1DAY	01JAN1960	- METADATA *
T3838	- - -	TERMO-1 E	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T4720	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1962	- METADATA *
T5544	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1962	- METADATA *
T14467	- - -	THOUSAND LAKES	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940	- METADATA *
T3879	- - -	TULELAKE-INSPECTION STN	PRECIP-INC	TD3200	1DAY	01JAN1958	- METADATA *
T3881	- - -	TURNTABLE-CREEK	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4752	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5576	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T4136	- - -	VALLEY FALLS	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4960	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948	- METADATA *
T5784	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948	- METADATA *
T4164	- - -	VALLEY FALLS-3 SSE	PRECIP-INC	TD3200	1DAY	01JAN1965	- METADATA *
T4988	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1965	- METADATA *
T5812	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1965	- METADATA *
T3903	- - -	VOLLMERS	PRECIP-INC	TD3200	1DAY	01JAN1947	- METADATA *
T10642	- - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948	- METADATA *
T4774	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1950	- METADATA *
T5598	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950	- METADATA *
T3932	- - -	WEED-FIRE DEPT	PRECIP-INC	TD3200	1DAY	01JAN1948	- METADATA *
T4776	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1957	- METADATA *
T5600	- - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1957	- METADATA *
T3970	- - -	WILLOW CREEK-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1964	- METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC13.DSS**

Catalog Created on Dec 20, 1999 at 14:41 File Created on Aug 25, 1999
Number of Records: 7143 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T37	S FORK AMERICAN R	11429800	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T1031	- - - - - - - -	11434900	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T43	- - - - - - - -	11435000	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T54	- - - - - - - -	11435100	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T82	- - - - - - - -	11435500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T1037	- - - - - - - -	11435900	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T84	- - - - - - - -	11436000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T160	- - - - - - - -	11436500	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T1049	- - - - - - - -	11436950	STORAGE	HYDROCD	1DAY	01JAN1969 - METADATA *
T176	- - - - - - - -	11436999	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T199	- - - - - - - -	11437000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T270	- - - - - - - -	11437500	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T290	- - - - - - - -	11438000	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T311	- - - - - - - -	11439000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T376	- - - - - - - -	11439300	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T391	- - - - - - - -	11439500	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T467	- - - - - - - -	11439501	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T543	- - - - - - - -	11439950	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T551	- - - - - - - -	11439999	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T560	- - - - - - - -	11440000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T620	- - - - - - - -	11440500	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T638	- - - - - - - -	11440850	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T644	- - - - - - - -	11440900	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T658	- - - - - - - -	11441000	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T1065	- - - - - - - -	11441001	STORAGE	HYDROCD	1DAY	01JAN1962 - METADATA *
T4880	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T695	- - - - - - - -	11441002	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T4904	- - - - - - - -	11441100	ELEV	USGS	1HOUR	01OCT1987 - METADATA *
T1100	- - - - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1959 - METADATA *
T4892	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T721	- - - - - - - -	11441500	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T4138	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T795	- - - - - - - -	11441750	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T1026	- - - - - - - -	11441760	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T799	- - - - - - - -	11441780	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA *
T806	- - - - - - - -	11441800	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T1152	- - - - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1986 - METADATA *
T1029	- - - - - - - -	11441890	STORAGE	HYDROCD	1DAY	01JAN1981 - METADATA *
T821	- - - - - - - -	11441895	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T846	- - - - - - - -	11441900	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T4212	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T884	- - - - - - - -	11442000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T925	- - - - - - - -	11442500	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T4286	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1168	- - - - - - - -	11442690	STORAGE	HYDROCD	1DAY	01JAN1982 - METADATA *
T951	- - - - - - - -	11442700	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T962	- - - - - - - -	11443000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T4916	- - - - - - - -	11443450	ELEV	USGS	1HOUR	01APR1990 - METADATA *
T998	- - - - - - - -	- - - - - - - - - - - - - - -	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T4359	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01JAN1989 - METADATA *
T1183	- - - - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1982 - METADATA *
T1009	- - - - - - - -	11443460	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA *
T1036	- - - - - - - -	11443500	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T1112	- - - - - - - -	11443501	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T1159	- - - - - - - -	11444200	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T4391	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1986 - METADATA *
T1171	- - - - - - - -	11444201	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T1183	- - - - - - - -	11444260	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T4971	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1986 - METADATA *
T1195	- - - - - - - -	11444280	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T1207	- - - - - - - -	11444500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T1252	- - - - - - - -	11445000	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T1265	- - - - - - - -	11445500	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T5096	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1311	- - - - - - - -	11446000	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC13.DSS** - *Continued*

T5528	- - - - - - - -	ALPHA	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T1	- - - - - - - -	ALPHA (SMUD)	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1995 - METADATA *
T56	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T3	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1995 - 01SEP1999*
T28	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T5399	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T31	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1996 - METADATA *
T5357	- - - - - - - -	CAMINO	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T5356	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T3627	- - - - - - - -	CAPLES LAKE	PRECIP-CUM	CDEC-CD	1HOUR	01DEC1986 - METADATA *
T363	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T5521	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3629	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01DEC1986 - 01SEP1999
T345	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T5402	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3631	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01DEC1986 - METADATA *
T4587	- - - - - - - -	CAPLES LAKES (CA)	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T4589	- - - - - - - -	CARSON PASS (UPPER)	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - METADATA *
T1	- - - - - - - -	CHILI BAR	FLOW	CDEC-WEB	1HOUR	01NOV1997 - METADATA *
T947	- - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01SEP1997 - METADATA *
T5601	- - - - - - - -	- - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T5544	- - - - - - - -	DARRINGTON	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T4620	- - - - - - - -	ECHO PEAK	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T4816	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - 01JAN1980
T4638	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T5472	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T4656	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1984 - METADATA *
T4670	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1984 - METADATA *
T4596	- - - - - - - -	ECHO PEAK SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T5532	- - - - - - - -	ECHO SUMMIT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T4598	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1940 - METADATA *
T1759	- - - - - - - -	ECHO SUMT-SIERRA AT TAHOE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2115	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2393	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4604	- - - - - - - -	FREEL BENCH	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - METADATA *
T1776	- - - - - - - -	GARDEN VALLEY-2 S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2132	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1971 - METADATA *
T2410	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1971 - METADATA *
T1801	- - - - - - - -	GEORGETOWN-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2134	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1953 - METADATA *
T2412	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1961 - METADATA *
T5582	- - - - - - - -	ICE HOUSE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T1848	- - - - - - - -	KELSEY	PRECIP-INC	TD3200	1DAY	01JAN1972 - METADATA *
T1863	- - - - - - - -	KYBURZ	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2755	- - - - - - - -	KYBURZ STRAWBERRY	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1865	- - - - - - - -	KYBURZ-STRAWBERRY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5538	- - - - - - - -	LAKE AUDRAIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T4611	- - - - - - - -	LAKE LUCILLE	SNOW-WEQV	NRCS	IR-DECADE	01JAN1910 - METADATA *
T5516	- - - - - - - -	LOWER CARSON PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T5568	- - - - - - - -	LYONS CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T1869	- - - - - - - -	MEYERS-4 SW	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T2168	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1961 - METADATA *
T2445	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1961 - METADATA *
T1876	- - - - - - - -	MEYERS-INSPECTION STN	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T1891	- - - - - - - -	MOUNT DANAHER	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3137	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2174	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1950 - METADATA *
T2451	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T5562	- - - - - - - -	PHILLIPS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T1918	- - - - - - - -	PINO GRANDE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1919	- - - - - - - -	PLACERVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3459	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2178	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2455	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2002	- - - - - - - -	PLACERVILLE-DISPOSAL PLANT	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1965	- - - - - - - -	PLACERVILLE-IFG	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T2224	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T2501	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC13.DSS** - *Continued*

T4065	- - - - - - - -	ROBBS PEAK P H	PRECIP-INC	TD3240	1HOUR	01FEB1967 - METADATA *
T14528	- - - - - - - -	ROBBS POWERHOUSE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1995 - METADATA *
T1553	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T14530	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1995 - 01SEP1999*
T1526	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T5406	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T14558	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1996 - METADATA *
T14394	- - - - - - - -	ROBBS SADDLE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1995 - METADATA *
T1585	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T14396	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1995 - 01SEP1999*
T1560	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1973 - METADATA *
T5409	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T14424	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1996 - METADATA *
T15657	- - - - - - - -	SCHNEIDERS	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1995 - METADATA *
T1658	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T15659	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1995 - 01SEP1999*
T1632	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1972 - METADATA *
T5412	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T15687	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1996 - METADATA *
T5550	- - - - - - - -	SILVER LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T16620	- - - - - - - -	SILVER LAKE(DWR)	PRECIP-CUM	CDEC-CD	1HOUR	01NOV1986 - METADATA *
T1709	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T16622	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01NOV1986 - 01SEP1999
T1707	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1986 - METADATA *
T5415	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T16624	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01NOV1986 - METADATA *
T2006	- - - - - - - -	TAHOE VALLEY-FAA AP	PRECIP-INC	TD3200	1DAY	01JAN1968 - METADATA *
T2261	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T2538	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T5575	- - - - - - - -	TAMARACK FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4860	- - - - - - - -	TRUCKEE (UPPER)	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - METADATA *
T2009	- - - - - - - -	TWIN LAKES	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2287	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2564	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T20387	- - - - - - - -	VAN VLECK	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1995 - METADATA *
T2021	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T20389	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1995 - 01SEP1999*
T1995	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1972 - METADATA *
T5418	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T20417	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1996 - METADATA *
T2055	- - - - - - - -	WOODFORDS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4448	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01FEB1979 - METADATA *
T2333	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2610	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5557	- - - - - - - -	WRIGHTS LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SAC14.DSS**

Catalog Created on Dec 20, 1999 at 14:44 File Created on Aug 25, 1999
Number of Records: 12780 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T11119	YUBA RIVER	11407800	ELEV	USGS	1HOUR	01OCT1994 - METADATA *
T1245	- - - - - -	- - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1964 - METADATA *
T11019	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T26	- - - - - -	11407810	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T8076	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1995 - METADATA *
T35	- - - - - -	11407815	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T8077	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01JUL1994 - METADATA *
T40	- - - - - -	11407900	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T64	- - - - - -	11408000	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T8105	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T135	- - - - - -	11408500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T8213	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01APR1989 - METADATA *
T186	- - - - - -	11408501	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T224	- - - - - -	11408550	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T8274	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T238	- - - - - -	11408599	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T275	- - - - - -	11408700	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T285	- - - - - -	11408850	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T8380	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T309	- - - - - -	11408870	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T8404	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01NOV1988 - METADATA *
T319	- - - - - -	11408880	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T8532	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T349	- - - - - -	11409000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T379	- - - - - -	11409001	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T409	- - - - - -	11409300	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T8662	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T441	- - - - - -	11409350	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T8805	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01NOV1988 - METADATA *
T453	- - - - - -	11409400	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T8934	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T482	- - - - - -	11409500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T542	- - - - - -	11410000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T573	- - - - - -	11410001	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T588	- - - - - -	11410400	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T595	- - - - - -	11410500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T617	- - - - - -	11411000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T634	- - - - - -	11411500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T656	- - - - - -	11412000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T680	- - - - - -	11412500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T704	- - - - - -	11413000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T9075	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01FEB1987 - METADATA *
T773	- - - - - -	11413100	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T794	- - - - - -	11413250	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T11582	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T831	- - - - - -	11413300	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T9217	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T870	- - - - - -	11413320	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T874	- - - - - -	11413323	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T878	- - - - - -	11413326	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T882	- - - - - -	11413327	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T885	- - - - - -	11413399	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T909	- - - - - -	11413500	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T936	- - - - - -	11413510	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T1278	- - - - - -	11413515	STORAGE	HYDROCD	1DAY	01JAN1968 - METADATA *
T968	- - - - - -	11413520	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T9218	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1001	- - - - - -	11413600	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T1007	- - - - - -	11413900	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T1308	- - - - - -	11413940	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T1320	- - - - - -	11413943	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T1327	- - - - - -	11413945	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T1014	- - - - - -	11413950	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA *
T1017	- - - - - -	11414000	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T9360	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1341	- - - - - -	11414050	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *
T1348	- - - - - -	11414070	STORAGE	HYDROCD	1DAY	01JAN1979 - METADATA *

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T1355   - - - - -   11414080                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1364   - - - - -   11414090                STORAGE       HYDROCD   1DAY       01JAN1976 - METADATA *
T1071   - - - - -   11414100                FLOW          HYDROCD   1DAY       01JAN1965 - METADATA *
T1104   - - - - -   11414140                FLOW          HYDROCD   1DAY       01JAN1967 - METADATA *
T1385   - - - - -   - - - - - - - - - - -   STORAGE       HYDROCD   1DAY       01JAN1964 - METADATA *
T1109   - - - - -   11414154                FLOW          HYDROCD   1DAY       01JAN1981 - METADATA *
T1126   - - - - -   11414155                FLOW          HYDROCD   1DAY       01JAN1981 - METADATA *
T1143   - - - - -   11414170                FLOW          HYDROCD   1DAY       01JAN1964 - METADATA *
T11435  - - - - -   - - - - - - - - - - -   - - - - - -   PG&E       1HOUR      01MAR1995 - 01JAN1997*
T11653  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1DAY       01JAN1964 - METADATA *
T11480  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1HOUR      METADATA
T1177   - - - - -   11414200                FLOW          HYDROCD   1DAY       01JAN1964 - METADATA *
T11439  - - - - -   - - - - - - - - - - -   - - - - - -   PG&E       1HOUR      01MAR1995 - 01JAN1997*
T11658  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1DAY       01JAN1964 - METADATA *
T11481  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1HOUR      METADATA
T1211   - - - - -   11414205                FLOW          HYDROCD   1DAY       01JAN1981 - METADATA *
T1228   - - - - -   11414210                FLOW          HYDROCD   1DAY       01JAN1970 - METADATA *
T11443  - - - - -   - - - - - - - - - - -   - - - - - -   PG&E       1HOUR      01MAR1995 - 01JAN1997*
T11684  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1DAY       01JAN1969 - METADATA *
T11482  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1HOUR      METADATA
T1256   - - - - -   11414250                FLOW          HYDROCD   1DAY       01JAN1965 - METADATA *
T11447  - - - - -   - - - - - - - - - - -   - - - - - -   PG&E       1HOUR      01MAR1995 - 01JAN1997*
T11710  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1DAY       01JAN1965 - METADATA *
T11483  - - - - -   - - - - - - - - - - -   - - - - - -   - - - -     1HOUR      METADATA
T1416   - - - - -   11414260                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1289   - - - - -   11414265                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1423   - - - - -   11414275                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1293   - - - - -   11414280                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1430   - - - - -   11414345                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1297   - - - - -   11414350                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1437   - - - - -   11414355                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1301   - - - - -   11414360                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1198   - - - - -   11414400                STORAGE       HYDROCD   1DAY       01JAN1981 - METADATA *
T1308   - - - - -   11414410                FLOW          HYDROCD   1DAY       01JAN1983 - METADATA *
T1321   - - - - -   11414430                FLOW          HYDROCD   1DAY       01JAN1983 - METADATA *
T1200   - - - - -   11414440                STORAGE       HYDROCD   1DAY       01JAN1980 - METADATA *
T1326   - - - - -   11414450                FLOW          HYDROCD   1DAY       01JAN1983 - METADATA *
T1202   - - - - -   11414465                STORAGE       HYDROCD   1DAY       01JAN1981 - METADATA *
T1339   - - - - -   11414470                FLOW          HYDROCD   1DAY       01JAN1983 - METADATA *
T1352   - - - - -   11414500                FLOW          HYDROCD   1DAY       01JAN1925 - METADATA *
T1204   - - - - -   11414690                STORAGE       HYDROCD   1DAY       01JAN1981 - METADATA *
T1358   - - - - -   11414700                FLOW          HYDROCD   1DAY       01JAN1983 - METADATA *
T1370   - - - - -   11415000                FLOW          HYDROCD   1DAY       01JAN1925 - METADATA *
T11249  - - - - -   11415500                ELEV          USGS      1HOUR      01OCT1993 - METADATA *
T1208   - - - - -   - - - - - - - - - - -   STORAGE       HYDROCD   1DAY       01JAN1926 - METADATA *
T11143  - - - - -   - - - - - - - - - - -   - - - - - -   USGS      1HOUR      01OCT1987 - METADATA *
T1376   - - - - -   11416000                FLOW          HYDROCD   1DAY       01JAN1927 - METADATA *
T9444   - - - - -   - - - - - - - - - - -   - - - - - -   USGS      1HOUR      01OCT1987 - METADATA *
T1447   - - - - -   11416100                FLOW          HYDROCD   1DAY       01JAN1964 - METADATA *
T1481   - - - - -   11416200                FLOW          HYDROCD   1DAY       01JAN1980 - METADATA *
T1499   - - - - -   11416500                FLOW          HYDROCD   1DAY       01JAN1926 - METADATA *
T9541   - - - - -   - - - - - - - - - - -   - - - - - -   USGS      1HOUR      01OCT1987 - METADATA *
T1492   - - - - -   11416580                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1571   - - - - -   11416585                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1499   - - - - -   11416590                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1575   - - - - -   11416610                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1506   - - - - -   11416618                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1582   - - - - -   11416620                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1513   - - - - -   11416650                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1520   - - - - -   11416660                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1597   - - - - -   11416670                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1527   - - - - -   11416680                STORAGE       HYDROCD   1DAY       01JAN1979 - METADATA *
T1603   - - - - -   11416700                FLOW          HYDROCD   1DAY       01JAN1982 - METADATA *
T1618   - - - - -   11417000                FLOW          HYDROCD   1DAY       01JAN1941 - METADATA *
T1649   - - - - -   11417100                FLOW          HYDROCD   1DAY       01JAN1960 - METADATA *
T1662   - - - - -   11417500                FLOW          HYDROCD   1DAY       01JAN1940 - METADATA *
T9650   - - - - -   - - - - - - - - - - -   - - - - - -   USGS      1HOUR      01OCT1987 - METADATA *
T1534   - - - - -   11417950                STORAGE       HYDROCD   1DAY       01JAN1973 - METADATA *
T1711   - - - - -   11417970                FLOW          HYDROCD   1DAY       01JAN1974 - METADATA *
T1734   - - - - -   11417980                FLOW          HYDROCD   1DAY       01JAN1970 - METADATA *
T1761   - - - - -   11418000                FLOW          HYDROCD   1DAY       01JAN1941 - METADATA *
T9791   - - - - -   - - - - - - - - - - -   - - - - - -   USGS      1HOUR      01OCT1987 - METADATA *
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T1818	- - - - -	11418500	FLOW	HYDROCD	1DAY	01JAN1935 - METADATA *
T9864	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1881	- - - - -	11419000	FLOW	HYDROCD	1DAY	01JAN1903 - METADATA *
T1920	- - - - -	11420000	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T1933	- - - - -	11420500	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T1947	- - - - -	11420700	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T1966	- - - - -	11420750	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T9983	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1988 - METADATA *
T940	- - - - -	11420760	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T1976	- - - - -	11420770	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T10012	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1988 - METADATA *
T1986	- - - - -	11420780	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T10047	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1988 - METADATA *
T1991	- - - - -	11420785	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T10081	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1988 - METADATA *
T1997	- - - - -	11420790	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T10121	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1988 - METADATA *
T2003	- - - - -	11421000	FLOW	HYDROCD	1DAY	01JAN1943 - METADATA *
T10160	- - - - -	- - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T2058	- - - - -	11421500	FLOW	HYDROCD	1DAY	01JAN1943 - METADATA *
T4485	- - - - -	BIG BEN-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T5368	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1965 - METADATA *
T6029	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1965 - METADATA *
T4498	- - - - -	BOCA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5373	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T6034	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T6821	- - - - -	BOWMAN DAM	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T12201	- - - - -	BOWMAN LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T4544	- - - - -	BOWMAN-DAM	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5419	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T6080	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T11902	- - - - -	BROWNS VALLEY	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T11901	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T4590	- - - - -	BULLARDS-BAR PH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T5466	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1962 - METADATA *
T6127	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1965 - METADATA *
T21	- - - - -	CAMPTONVILLE	PRECIP-INC	CESPK	1DAY	01JAN1967 - METADATA *
T7427	- - - - -	CAMPTONVILLE 1 SW	PRECIP-INC	TD3240	1HOUR	01NOV1994 - METADATA *
T7477	- - - - -	CAMPTONVILLE R S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4612	- - - - -	CAMPTONVILLE-R S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10986	- - - - -	CASTLE CREEK	SNOW-WEQV	NRCS	IR-DECADE	01JAN1940 - METADATA *
T12116	- - - - -	CASTLE CREEK 5	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T12217	- - - - -	CHALK BLUFF	SNOW-WEQV	CDEC	IR-DECADE	01JAN1980 - METADATA *
T4638	- - - - -	CHALLENGE-R S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5470	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1969 - METADATA *
T6129	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *
T12197	- - - - -	CHAPMAN CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T12101	- - - - -	CHURCH MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T12188	- - - - -	CISCO	SNOW-WEQV	CDEC	IR-DECADE	01JAN1910 - METADATA *
T4684	- - - - -	CISCO-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T4698	- - - - -	COLGATE-POWER HOUSE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5476	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1965 - METADATA *
T6135	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1965 - METADATA *
T10618	- - - - -	CSS LAB PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T4767	- - - - -	DEER CREEK-FOREBAY	PRECIP-INC	TD3200	1DAY	01JAN1969 - METADATA *
T5502	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1969 - METADATA *
T6159	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *
T4744	- - - - -	DEER CREEK-PH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5479	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T6136	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4792	- - - - -	DOBBINS-1 S	PRECIP-INC	TD3200	1DAY	01JAN1969 - METADATA *
T5527	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1969 - METADATA *
T6184	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *
T4817	- - - - -	DOBBINS-COLGATE FOREBA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5552	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T6209	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T10620	- - - - -	DONNER PARK #2	SNOW-WEQV	NRCS	IR-DECADE	01JAN1950 - METADATA *
T8029	- - - - -	DONNER SUMMIT	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T12147	- - - - -	- - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1910 - METADATA *
T10624	- - - - -	- - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1910 - METADATA *
T4840	- - - - -	DONNER-MEMORIAL ST PK	PRECIP-INC	TD3200	1DAY	01JAN1953 - METADATA *
T5575	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1953 - METADATA *
T6232	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1953 - METADATA *

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T4881	- - - - -	DONNER-SUMMIT	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5616	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1949 - METADATA *
T6273	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1949 - METADATA *
T4885	- - - - -	DOWNIEVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8068	- - - - -	- - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T5619	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T6276	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2047	- - - - -	ENGLEBRIGHT	ELEV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T55	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1954 - METADATA *
T11944	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T26	- - - - -	- - - - - - - - - - - -	FLOW-RES IN	CESPK	1DAY	01JAN1955 - METADATA *
T160	- - - - -	- - - - - - - - - - - -	FLOW-RES OUT	CESPK	1DAY	01JAN1954 - METADATA *
T1989	- - - - -	- - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01JAN1995 - METADATA *
T814	- - - - -	- - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1996 - METADATA *
T1906	- - - - -	- - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T30	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T11605	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T65	- - - - -	- - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1954 - METADATA *
T781	- - - - -	- - - - - - - - - - - -	STAGE-RES	CESPK	1HOUR	01JAN1995 - METADATA *
T652	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1996 - METADATA *
T143	- - - - -	- - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1972 - METADATA *
T651	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1996 - METADATA *
T112	- - - - -	- - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1971 - METADATA *
T12139	- - - - -	ENGLISH MOUNTAIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T12165	- - - - -	FINDLEY PEAK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T10633	- - - - -	FORDYCE LAKE	SNOW-WEQV	NRCS	IR-DECADE	01JAN1910 - METADATA *
T12156	- - - - -	FURNACE FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1910 - METADATA *
T10642	- - - - -	- - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1910 - METADATA *
T12212	- - - - -	GIBSONVILLE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T7239	- - - - -	GOLD LAKE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1984 - METADATA *
T696	- - - - -	- - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T7240	- - - - -	- - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1984 - 01SEP1999
T677	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T11939	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5309	- - - - -	HARRY L ENGLEBRIGHT-DAM	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T5664	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1981 - METADATA *
T6321	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1981 - METADATA *
T10677	- - - - -	INDEPENDENCE LAKE	PRECIP-INC	NRCS	1DAY	01JAN1978 - METADATA *
T12219	- - - - -	- - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T10651	- - - - -	- - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1930 - 01JAN1990
T10714	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1978 - METADATA *
T12059	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T10761	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1994 - METADATA *
T10777	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1994 - METADATA *
T10658	- - - - -	INDEPENDENCE LAKE PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T5032	- - - - -	LA PORTE	PRECIP-INC	TD3200	1DAY	01JAN1956 - METADATA *
T8674	- - - - -	- - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01NOV1958 - METADATA *
T12173	- - - - -	LAKE FORDYCE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1910 - METADATA *
T4969	- - - - -	LAKE SPAULDING	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5665	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T6322	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5015	- - - - -	LAKE SPAULDING-DAM	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T5711	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T6368	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T12209	- - - - -	LEXINGTON	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T12122	- - - - -	MEADOW LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T11114	- - - - -	- - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1997 - 01SEP1999
T1141	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1997 - METADATA *
T11941	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11115	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1997 - METADATA *
T5035	- - - - -	NEVADA CITY	PRECIP-INC	TD3200	1DAY	01JAN1931 - METADATA *
T8901	- - - - -	- - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01APR1949 - METADATA *
T5728	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1930 - METADATA *
T6385	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1930 - METADATA *
T8920	- - - - -	NEVADA CITY 1 N	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T5098	- - - - -	NEVADA CITY-1 N	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1	- - - - -	NEW BULLARDS BAR	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T2	- - - - -	- - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T8929	- - - - -	NORTH BLOOMFIELD	PRECIP-INC	TD3240	1HOUR	01OCT1969 - METADATA *
T190	- - - - -	PH1 @ENG	FLOW	CESPK	1DAY	01JAN1954 - METADATA *
T16	- - - - -	PH2 @ENG	FLOW	CESPK	1DAY	01JAN1954 - METADATA *
T12130	- - - - -	RED MOUNTAIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1910 - METADATA *
T12182	- - - - -	ROBINSON COW CAMP	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SAC14.DSS** - *Continued*

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T5100   - - - - -   SAGEHEN-CREEK             PRECIP-INC    TD3200    1DAY       01JAN1953 - METADATA *
T5792   - - - - -   - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1966 - METADATA *
T6449   - - - - -   - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1966 - METADATA *
T5141   - - - - -   SIERRA-CITY               PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T5815   - - - - -   - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1947 - METADATA *
T6472   - - - - -   - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1947 - METADATA *
T5196   - - - - -   SODA SPRINGS              PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T9436   - - - - -   - - - - - - - - - - - -   - - - - - -   TD3240    1HOUR      01JUL1948 - METADATA *
T5871   - - - - -   - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1948 - METADATA *
T6528   - - - - -   - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1948 - METADATA *
T9280   - - - - -   SODA SPRINGS 1 E          PRECIP-INC    TD3240    1HOUR      01JUL1948 - METADATA *
T5186   - - - - -   SODA SPRINGS-1 E          PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T5861   - - - - -   - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1948 - METADATA *
T6518   - - - - -   - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1948 - METADATA *
T2412   - - - - -   SPILLWAY @ENG             FLOW-SPILL    CESPK     1HOUR      01JAN1995 - 01SEP1999
T74     - - - - -   - - - - - - - - - - - -   - - - - - -   - - - -   1DAY       01JAN1954 - METADATA *
T11485  - - - - -   - - - - - - - - - - - -   - - - - - -   - - - -   1HOUR      METADATA
T5217   - - - - -   STRAWBERRY VALLEY         PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T5892   - - - - -   - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1948 - METADATA *
T6548   - - - - -   - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1948 - METADATA *
T12185  - - - - -   SUNNYSIDE MEADOW          SNOW-WEQV     CDEC      IR-DECADE  01JAN1970 - METADATA *
T10012  - - - - -   TRUCKEE                   PRECIP-INC    TD3240    1HOUR      01JUL1948 - METADATA *
T5263   - - - - -   TRUCKEE-RANGER STN        PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T5938   - - - - -   - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1948 - METADATA *
T6594   - - - - -   - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1948 - METADATA *
T10661  - - - - -   WEBBER LAKE               SNOW-WEQV     NRCS      IR-DECADE  01JAN1920 - METADATA *
T12108  - - - - -   WEBBER PEAK               SNOW-WEQV     CDEC      IR-DECADE  01JAN1920 - METADATA *
T10669  - - - - -   - - - - - - - - - - - -   - - - - - -   NRCS      IR-DECADE  01JAN1920 - METADATA
  *  Record time span has missing periods.
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HECDSS Condensed Catalog of Record Pathnames in File **SJ01.DSS**

Catalog Created on Dec 20, 1999 at 14:49 File Created on Aug 25, 1999
Number of Records: 2018 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T863	CALAVERAS	11305000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T929	- - - -	11305500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T963	- - - -	11306000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T925	- - - -	11306500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T882	- - - -	11307000	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T920	- - - -	11307500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T984	- - - -	11308000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T1015	- - - -	11308500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T1558	- - - -	11308700	STORAGE	HYDROCD	1DAY	01JAN1963 - METADATA *
T1804	- - - -	11308900	ELEV	USGS	1HOUR	01OCT1989 - METADATA *
T1081	- - - -	- - - - - - - - - - - - - - - -	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T1230	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1586	- - - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1976 - METADATA *
T974	- - - -	11309000	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T12	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01DEC1996 - METADATA *
T969	- - - -	11309500	FLOW	HYDROCD	1DAY	01JAN1906 - METADATA *
T1051	- - - -	11310500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T1213	- - - -	11311000	FLOW	HYDROCD	1DAY	01JAN1943 - METADATA *
T1308	- - - -	CALAVERAS BIG TREES	PRECIP-INC	TD3240	1HOUR	01JUL1986 - METADATA *
T1487	- - - -	CALAVERAS-BIG TREES	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1525	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1554	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1025	- - - -	MORMON SLOUGH AT BELLOTA (ALERT)	STAGE	CDEC-WEB	1HOUR	01DEC1996 - METADATA *
T1830	- - - -	NEW HOGAN	ELEV	CESPK	1DAY	01JAN1963 - METADATA *
T1671	- - - -	- - - - - - - - - - - - - - - -	FLOW	CESPK	1DAY	01JAN1963 - METADATA *
T1587	- - - -	- - - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1642	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1963 - METADATA *
T1999	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1720	- - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1885	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1963 - METADATA *
T2000	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1651	- - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T1690	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T2022	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1731	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1963 - METADATA *
T714	- - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T1838	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1963 - METADATA *
T1769	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1963 - METADATA *
T1834	- - - -	- - - - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1963 - METADATA *
T6558	- - - -	NR VALLEY SPR	FLOW	CESPK	1HOUR	01MAY1995 - 01SEP1999
T3464	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1990 - METADATA *
T1997	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6552	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKINST	1HOUR	01JAN1995 - METADATA *
T3050	- - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T2362	- - - -	PERRY RANCH	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T2095	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T2024	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2216	- - - -	RAILROAD FLAT	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T2030	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T2026	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2308	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01MAR1995 - METADATA *
T2258	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T2254	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T1577	- - - -	SAN ANDREAS-2 S	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1484	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T1307	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T2217	- - - -	SHEEP RANCH	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T2034	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T2029	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2309	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01MAR1995 - METADATA *
T2259	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T2255	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T1607	- - - -	STOCKTON-2	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1539	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1565	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1608	- - - -	STOCKTON-FIRE STN # 4	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1639	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1694	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SJ02.DSS**

Catalog Created on Dec 20, 1999 at 14:50 File Created on Aug 25, 1999
Number of Records: 8687 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	COSUMNES	11311500	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA *
T3	- - - -	11312000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T59	- - - -	11312500	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA *
T7271	- - - -	11313470	FLOW	PG&E	1DAY	01JAN1978 - METADATA *
T65	- - - -	11313472	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T7344	- - - -	11313475	FLOW	PG&E	1DAY	01JAN1978 - METADATA *
T83	- - - -	11313477	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1615	- - - -	11313500	STORAGE	HYDROCD	1DAY	01JAN1930 - METADATA *
T15199	- - - -	11313510	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T101	- - - -	11314000	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T169	- - - -	11314500	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA *
T7154	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	PG&E	1HOUR	01MAR1995 - 01FEB1997*
T7292	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1926 - METADATA *
T7170	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T241	- - - -	11315000	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T312	- - - -	11315030	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T329	- - - -	11315500	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T7153	- - - -	11315600	STAGE	PG&E	1HOUR	01DEC1996 - METADATA *
T7318	- - - -	- - - - - - - - - - - - - - - - -	STORAGE	PG&E	1DAY	01JAN1969 - METADATA *
T354	- - - -	11315900	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T371	- - - -	11316000	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T408	- - - -	11316100	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T419	- - - -	11316500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T429	- - - -	11316600	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T458	- - - -	11316610	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T476	- - - -	11316670	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T492	- - - -	11316700	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T508	- - - -	11316800	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T5566	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T550	- - - -	11317000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T6478	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T638	- - - -	11317500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T1409	- - - -	11318000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T662	- - - -	11318500	FLOW	HYDROCD	1DAY	01JAN1933 - METADATA *
T6609	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T728	- - - -	11319500	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T6741	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1666	- - - -	11320000	STORAGE	HYDROCD	1DAY	01JAN1961 - METADATA *
T799	- - - -	11321000	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T838	- - - -	11321500	FLOW	HYDROCD	1DAY	01JAN1932 - METADATA *
T841	- - - -	11322000	FLOW	HYDROCD	1DAY	01JAN1931 - METADATA *
T1695	- - - -	11322300	STORAGE	HYDROCD	1DAY	01JAN1963 - METADATA *
T1415	- - - -	11323500	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T4508	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T845	- - - -	11325000	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T919	- - - -	11325500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T6269	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T994	- - - -	11326300	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T1006	- - - -	11326500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T1011	- - - -	11327000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T1053	- - - -	11327500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T1069	- - - -	11328000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T1079	- - - -	11329000	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T1086	- - - -	11329500	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA *
T6838	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1995 - METADATA *
T1141	- - - -	11330000	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T1147	- - - -	11331000	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T1149	- - - -	11331500	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T1158	- - - -	11332500	FLOW	HYDROCD	1DAY	01JAN1946 - METADATA *
T1168	- - - -	11333000	FLOW	HYDROCD	1DAY	01JAN1954 - METADATA *
T6864	- - - -	- - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T1212	- - - -	11333500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T1283	- - - -	11334200	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T1299	- - - -	11334300	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T1323	- - - -	11334500	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *

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T1333	- - - -	11335000	FLOW	HYDROCD	1DAY	01JAN1907 - METADATA *
T1	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T7006	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01DEC1983 - METADATA *
T1425	- - - -	11335700	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T1443	- - - -	11336000	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T1486	- - - -	11336500	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T4890	- - - -	ACAMPO 5 NE	PRECIP-INC	TD3200	1DAY	01JAN1994 - METADATA *
T4374	- - - -	ACAMPO-5 ENE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2450	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1959 - METADATA *
T4233	- - - -	ANGWIN-PAC UNION COL	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2636	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1952 - METADATA *
T2312	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1951 - METADATA *
T8147	- - - -	ANTELOPE SPRINGS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T1015	- - - -	BEAR CREEK NEAR LODI	STAGE	CDEC-WEB	1HOUR	01OCT1996 - METADATA *
T8169	- - - -	- - - - - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T7364	- - - -	BEAR RESERVOIR	STORAGE	PG&E	1DAY	01JAN1978 - METADATA *
T8125	- - - -	BEAR VALLEY RIDGE 1	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T183	- - - -	BLACK SPRINGS	PRECIP-INC	CDEC-CD	1DAY	01JAN1988 - METADATA *
T8154	- - - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T3305	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1998 - 01SEP1999
T169	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1977 - METADATA *
T7924	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3306	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998 - METADATA *
T3296	- - - -	BLUE LAKES	PRECIP-CUM	CDEC-CD	1HOUR	01JUL1999 - METADATA *
T5830	- - - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T3299	- - - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1999 - 01SEP1999
T262	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T7927	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5803	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1910 - 01JAN1990
T5897	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T8005	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T3302	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1999 - METADATA *
T5961	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1983 - METADATA *
T5997	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1983 - METADATA *
T5812	- - - -	BLUE LAKES SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T43	- - - -	CAMANCHE	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T44	- - - -	- - - - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T4279	- - - -	CAMP PARDEE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3026	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2678	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2355	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T6175	- - - -	CCRNWS	PRECIP-INC	EBMUD	1DAY	01JAN1985 - METADATA *
T6190	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	EBMUD	1DAY	01JAN1992 - METADATA *
T6198	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	EBMUD	1DAY	01JAN1992 - METADATA *
T4324	- - - -	COLEVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2723	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2400	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T8114	- - - -	CORRAL FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7602	- - - -	COSUMNES R @ MCCONNELL	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T5827	- - - -	EBBETTS PASS	PRECIP-INC	NRCS	1DAY	01JAN1978 - METADATA *
T5894	- - - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	1DAY	01JAN1978 - METADATA *
T5967	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1987 - METADATA *
T6003	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1987 - METADATA *
T6219	- - - -	EBBETTS PASS #2	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T5814	- - - -	EBBETTS PASS - AERIAL MARKER	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - METADATA *
T5817	- - - -	EBBETTS PASS SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T4328	- - - -	ELECTRA-POWER HOUSE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2727	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2404	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3632	- - - -	FIDDLETOWN DEXTER RA	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4934	- - - -	FIDDLETOWN-DEXTER RANCH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T4466	- - - -	GRIZZLY FLATS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4238	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T8140	- - - -	HAMS STATION	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T8056	- - - -	HIGHLAND MEADOW	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1989 - METADATA *
T910	- - - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T8091	- - - -	- - - - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T8057	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1989 - 01SEP1999
T901	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T7930	- - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T8055	- - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1989 - METADATA *

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T4470	- - - -	IONE	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T4489	- - - -	LEHMAN-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1961 - METADATA *
T7850	- - - -	LODI	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T4506	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1948 - METADATA *
T7849	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T2773	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2452	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T8132	- - - -	LUMBERYARD	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T8139	- - - -	LUMBERYARD 2	SNOW-WEQV	CDEC	IR-DECADE	01JAN1990 - METADATA *
T4552	- - - -	MARKLEEVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4471	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2819	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1990 - METADATA *
T2498	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1990 - METADATA *
T1	- - - -	MOKELUMNE R @WOODBRIDGE	STAGE	CDEC-WEB	1HOUR	01APR1997 - METADATA *
T10081	- - - -	MORMON SL @ BELLOTA	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T4475	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7171	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7261	- - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01OCT1995 - 01AUG1999
T7255	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T7232	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3553	- - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T10980	- - - -	MUD LAKE	PRECIP-CUM	CDEC-CD	1HOUR	01JAN1995 - METADATA *
T1245	- - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T10982	- - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JAN1995 - 01SEP1999*
T1219	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1971 - METADATA *
T7934	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11010	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1996 - METADATA *
T8107	- - - -	PACIFIC VALLEY	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4560	- - - -	PACIFIC-HOUSE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2823	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1957 - METADATA *
T47	- - - -	PARDEE	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T48	- - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T4606	- - - -	PLYMOUTH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T8121	- - - -	PODESTA	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T4936	- - - -	SALT SPRINGS-POWER HOUSE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2824	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2502	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7874	- - - -	SHENANDOAH VALLEY	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T7873	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T4668	- - - -	SHINGLE-SPRINGS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T4693	- - - -	SLOUGHHOUSE-6 SE	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T5077	- - - -	SOMERSET 5 ESE	PRECIP-INC	TD3240	1HOUR	01NOV1967 - METADATA *
T5833	- - - -	SPRATT CREEK	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T6311	- - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - 01JAN1990
T5900	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T8010	- - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	IR-DECADE	METADATA
T5971	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1988 - METADATA *
T6007	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1988 - METADATA *
T5820	- - - -	SPRATT CREEK SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T4937	- - - -	SUTTER HILL-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2870	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T2548	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T4739	- - - -	TAMARACK	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2872	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2550	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5197	- - - -	TIGER CREEK PH	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4740	- - - -	TIGER CREEK-PH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2873	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2551	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4938	- - - -	TOPAZ	PRECIP-INC	TD3200	1DAY	01JAN1952 - METADATA *
T2919	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1953 - METADATA *
T2597	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1953 - METADATA *
T4789	- - - -	TOPAZ-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T2922	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T2600	- - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T8096	- - - -	TRAGEDY CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *

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T4792   - - - -   WALLACE-1 NNE                     PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T2925   - - - -   - - - - - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1957 - METADATA *
T2603   - - - -   - - - - - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1975 - METADATA *
T4821   - - - -   WEST POINT                       PRECIP-INC    TD3200    1DAY       01JAN1948 - METADATA *
T2929   - - - -   - - - - - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1980 - METADATA *
T2605   - - - -   - - - - - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1980 - METADATA *
T4848   - - - -   WEST POINT-3 SW                   PRECIP-INC    TD3200    1DAY       01JAN1949 - METADATA *
T2930   - - - -   - - - - - - - - - - - - - - - -   TEMP-AIR MAX  TD3200    1DAY       01JAN1968 - METADATA *
T2606   - - - -   - - - - - - - - - - - - - - - -   TEMP-AIR MIN  TD3200    1DAY       01JAN1968 - METADATA *
T5835   - - - -   WET MEADOWS                      PRECIP-INC    NRCS      1DAY       01JAN1980 - METADATA *
T5902   - - - -   - - - - - - - - - - - - - - - -   SNOW-WEQV     NRCS      1DAY       01JAN1980 - METADATA *
T6262   - - - -   WET MEADOWS #2                   SNOW-WEQV     NRCS      IR-DECADE  01JAN1970 - METADATA *
T5822   - - - -   WET MEADOWS LAKE - AERIAL MARKER SNOW-WEQV     NRCS      IR-DECADE  01JAN1960 - METADATA *
T5825   - - - -   WET MEADOWS SNOTEL               SNOW-WEQV     NRCS      IR-DECADE  01JAN1980 - METADATA *
T8100   - - - -   WHEELER LAKE                     SNOW-WEQV     CDEC      IR-DECADE  01JAN1930 - METADATA *
T4940   - - - -   WHITE ROCK                       PRECIP-INC    TD3200    1DAY       01JAN1947 - METADATA
  *  Record time span has missing periods.
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HECDSS Condensed Catalog of Record Pathnames in File **SJ03.DSS**

Catalog Created on Dec 20, 1999 at 14:53 File Created on Aug 25, 1999
Number of Records: 9870 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	DON PEDRO RES	11274710	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T8	- - - - - -	11274800	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T15	- - - - - -	11275000	FLOW	HYDROCD	1DAY	01JAN1915 - METADATA *
T6359	- - - - - -	11275500	ELEV	USGS	1HOUR	01MAR1995 - METADATA *
T1771	- - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1930 - METADATA *
T6317	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01MAR1995 - METADATA *
T84	- - - - - -	11276500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T4300	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01JUL1988 - METADATA *
T172	- - - - - -	11276600	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T4429	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T200	- - - - - -	11276900	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T4560	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T232	- - - - - -	11277000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T279	- - - - - -	11277100	FLOW	HYDROCD	1DAY	01JAN1995 - METADATA *
T4690	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01JUL1996 - METADATA *
T6522	- - - - - -	11277200	ELEV	USGS	1HOUR	01MAR1990 - METADATA *
T283	- - - - - -	- - - - - - - - - - - - - - -	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T1746	- - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1955 - METADATA *
T6401	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T285	- - - - - -	11277300	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T4727	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T6735	- - - - - -	11277500	ELEV	USGS	1HOUR	01OCT1987 - METADATA *
T1833	- - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1918 - METADATA *
T6619	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T327	- - - - - -	11278000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T4858	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T416	- - - - - -	11278200	FLOW	HYDROCD	1DAY	01JAN1955 - METADATA *
T4986	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T444	- - - - - -	11278300	FLOW	HYDROCD	1DAY	01JAN1955 - METADATA *
T5082	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T487	- - - - - -	11278400	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T5210	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T523	- - - - - -	11278500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T525	- - - - - -	11279500	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T535	- - - - - -	11280000	FLOW	HYDROCD	1DAY	01JAN1913 - METADATA *
T540	- - - - - -	11281000	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T5338	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T615	- - - - - -	11281500	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T624	- - - - - -	11282000	FLOW	HYDROCD	1DAY	01JAN1916 - METADATA *
T5456	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T705	- - - - - -	11282500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T715	- - - - - -	11283000	FLOW	HYDROCD	1DAY	01JAN1907 - METADATA *
T744	- - - - - -	11283100	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T756	- - - - - -	11283200	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T773	- - - - - -	11283250	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T5574	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T783	- - - - - -	11283350	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T5652	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T12286	- - - - - -	11283500	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T13833	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T793	- - - - - -	11284400	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T5736	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T823	- - - - - -	11284500	FLOW	HYDROCD	1DAY	01JAN1931 - METADATA *
T843	- - - - - -	11284700	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T869	- - - - - -	11285000	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T878	- - - - - -	11286500	FLOW	HYDROCD	1DAY	01JAN1925 - METADATA *
T6915	- - - - - -	11287500	ELEV	USGS	1HOUR	01JUN1993 - METADATA *
T1901	- - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1930 - METADATA *
T6843	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T922	- - - - - -	11288000	FLOW	HYDROCD	1DAY	01JAN1895 - METADATA *
T7284	- - - - - -	BEEHIVE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7291	- - - - - -	BELL MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7223	- - - - - -	BOND PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T6031	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1940 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ03.DSS** - *Continued*

T5292	- - - - - -	BRIDGEPORT	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3802	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T3401	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1956 - METADATA *
T3103	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1957 - METADATA *
T3826	- - - - - -	BRIDGEPORT RANGER ST	PRECIP-INC	TD3240	1HOUR	01JUN1950 - METADATA *
T5294	- - - - - -	BRIDGEPORT-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T6036	- - - - - -	CENTER MOUNTAIN	SNOW-WEQV	NRCS	IR-DECADE	01JAN1920 - METADATA *
T6043	- - - - - -	CENTER MOUNTAIN AERIAL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - METADATA *
T4892	- - - - - -	CHERRY VALLEY-DAM	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T3439	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T3140	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T4931	- - - - - -	CROCKER-STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T7209	- - - - - -	DANA MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T5704	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T521	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1980 - METADATA *
T7121	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T5706	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T6046	- - - - - -	DODGE RIDGE	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T4936	- - - - - -	ELLERY-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3478	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3179	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T6847	- - - - - -	GEM PASS	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T600	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1983 - METADATA *
T7124	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T6850	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T4977	- - - - - -	GROVELAND	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3480	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3181	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4409	- - - - - -	GROVELAND 2	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4984	- - - - - -	GROVELAND-2	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5302	- - - - - -	GROVELAND-RANGER STATION	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3482	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1977 - METADATA *
T3379	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T5297	- - - - - -	HETCH HETCHY	PRECIP-INC	TD3200	1DAY	01JAN1930 - METADATA *
T5015	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T3487	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1930 - METADATA *
T3188	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1930 - METADATA *
T7236	- - - - - -	HORSE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T9326	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T916	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1984 - METADATA *
T7127	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T9328	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T7248	- - - - - -	HUCKLEBERRY LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T7260	- - - - - -	KERRICK CORRAL	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T5298	- - - - - -	LAKE ELEANOR	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3551	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T3252	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T5299	- - - - - -	LEE VINING	PRECIP-INC	TD3200	1DAY	01JAN1987 - METADATA *
T3562	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1988 - METADATA *
T3263	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1988 - METADATA *
T9676	- - - - - -	LOWER KIBBIE RDG	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T1109	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1983 - METADATA *
T7130	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T9678	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T7277	- - - - - -	LOWER KIBBIE RIDGE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5300	- - - - - -	MATHER	PRECIP-INC	TD3200	1DAY	01JAN1952 - METADATA *
T3568	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1972 - METADATA *
T3269	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1956 - METADATA *
T5148	- - - - - -	MONO-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T3571	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1950 - METADATA *
T3274	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T1	- - - - - -	NEW DON PEDRO	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T2	- - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T7315	- - - - - -	NEW GRACE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T6048	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1960 - METADATA *
T7254	- - - - - -	PARADISE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T12415	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T1293	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1980 - METADATA *
T7133	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T12417	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T5621	- - - - - -	PINECREST SUMMIT R S	PRECIP-INC	TD3240	1HOUR	01NOV1964 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ03.DSS** - *Continued*

T7217	- - - - - -	RAFFERTY MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T5301	- - - - - -	RUSH CREEK-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3610	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3313	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7242	- - - - - -	SACHSE SPRINGS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T17085	- - - - - -	SLIDE CANYON	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T1764	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1982 - METADATA *
T7136	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T17087	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T5190	- - - - - -	SONORA-RS	PRECIP-INC	TD3200	1DAY	01JAN1931 - METADATA *
T3613	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T3316	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1931 - METADATA *
T7325	- - - - - -	SPOTTED FAWN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T6051	- - - - - -	TIOGA PASS	SNOW-WEQV	NRCS	IR-DECADE	01JAN1920 - METADATA *
T19225	- - - - - -	TUOLUMNE MEADOWS	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T1956	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T7229	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T19227	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T1947	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1979 - METADATA *
T7139	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T19229	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T7264	- - - - - -	UPPER KIBBIE RIDGE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7271	- - - - - -	VERNON LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T20375	- - - - - -	VIRGINIA LAKES	PRECIP-CUM	CDEC-CD	1HOUR	01JUN1999 - METADATA *
T20379	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUN1999 - 01SEP1999
T2027	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1970 - METADATA *
T7142	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T6285	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	NRCS	IR-DECADE	01JAN1940 - METADATA *
T20383	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUN1999 - METADATA *
T6062	- - - - - -	VIRGINIA LAKES RIDGE	PRECIP-INC	NRCS	1DAY	01JAN1978 - METADATA *
T6301	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - 01JAN1990
T6082	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1978 - METADATA *
T7206	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	IR-DECADE	METADATA
T6102	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1982 - METADATA *
T6118	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1982 - METADATA *
T6059	- - - - - -	VIRGINIA LAKES RIDGE PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T7319	- - - - - -	WILMA LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SJ04.DSS**

Catalog Created on Dec 20, 1999 at 14:55 File Created on Aug 25, 1999
Number of Records: 3608 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	LAKE MCCLURE	11264500	FLOW	HYDROCD	1DAY	01JAN1915 - METADATA *
T2198	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01AUG1988 - METADATA *
T85	- - - - - -	11265000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T133	- - - - - -	11265500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T140	- - - - - -	11266000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T148	- - - - - -	11266500	FLOW	HYDROCD	1DAY	01JAN1916 - METADATA *
T2330	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01AUG1988 - METADATA *
T231	- - - - - -	11267300	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T264	- - - - - -	11267500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T274	- - - - - -	11268000	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T301	- - - - - -	11268001	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T328	- - - - - -	11268200	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T339	- - - - - -	11268500	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T384	- - - - - -	11269300	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T2857	- - - - - -	11269500	ELEV	USGS	1HOUR	01OCT1988 - METADATA *
T1968	- - - - - -	- - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1930 - METADATA *
T2797	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T406	- - - - - -	11269700	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T431	- - - - - -	11270000	FLOW	HYDROCD	1DAY	01JAN1900 - METADATA *
T2035	- - - - - -	11270600	STORAGE	HYDROCD	1DAY	01JAN1987 - METADATA *
T496	- - - - - -	11270610	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T11009	- - - - - -	11270800	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T14153	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01APR1991 - METADATA *
T2096	- - - - - -	DUDLEYS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1213	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1078	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2125	- - - - - -	EXCHEQUER-RESERVOIR	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T1242	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T1107	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA *
T2169	- - - - - -	FISH CAMP	PRECIP-INC	TD3200	1DAY	01JAN1971 - METADATA *
T1245	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T1110	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA *
T1	- - - - - -	GIN FLAT	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T3013	- - - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T2	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T3	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T652	- - - - - -	GIN FLAT**	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T645	- - - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1DAY	01JAN1981 - METADATA *
T3006	- - - - - -	LAKE TENAYA	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T19201	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1998 - 01SEP1999
T1928	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1998 - METADATA *
T2967	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T19203	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1998 - METADATA *
T63	- - - - - -	MERCED RIVER NEAR BRICEBURG	FLOW	CDEC-WEB	1HOUR	01JUN1999 - METADATA *
T75	- - - - - -	- - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01JUN1999 - METADATA *
T3032	- - - - - -	- - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T13	- - - - - -	NEW EXCHEQUER	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T14	- - - - - -	- - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T2999	- - - - - -	OSTRANDER LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T18639	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1988 - 01SEP1999
T1281	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T2971	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T18640	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1988 - METADATA *
T3020	- - - - - -	PEREGOY MEADOWS 2	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T2279	- - - - - -	S ENTRANCE-YOSEMITE NATL PK	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1247	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1112	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2992	- - - - - -	SNOW FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T1388	- - - - - -	WAWONA R S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2216	- - - - - -	WAWONA-RANGER STATION	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1994	- - - - - -	YOSEMITE PARK HDQTRS	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2280	- - - - - -	YOSEMITE-PARK HDQUARTERS	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1293	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T1158	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SJ05.DSS**

Catalog Created on Dec 20, 1999 at 14:55 File Created on Aug 25, 1999
Number of Records: 4009 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	MARIPOSA RES	11250500	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T51	- - - - - -	11251000	FLOW	HYDROCD	1DAY	01JAN1907 - METADATA *
T2856	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T12	- - - - - -	11257100	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T35	- - - - - -	11257500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T1610	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T112	- - - - - -	11257700	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T2043	- - - - - -	11257950	STORAGE	HYDROCD	1DAY	01JAN1975 - METADATA *
T117	- - - - - -	11258000	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T1634	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T167	- - - - - -	11258800	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T178	- - - - - -	11258900	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T202	- - - - - -	11258920	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T212	- - - - - -	11258960	FLOW	HYDROCD	1DAY	01JAN1979 - METADATA *
T1658	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T224	- - - - - -	11258980	FLOW	HYDROCD	1DAY	01JAN1971 - METADATA *
T2059	- - - - - -	11258990	STORAGE	HYDROCD	1DAY	01JAN1975 - METADATA *
T234	- - - - - -	11259000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T1682	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T298	- - - - - -	11259300	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T302	- - - - - -	11260200	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T315	- - - - - -	11260225	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T321	- - - - - -	11260480	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T242	- - - - - -	11267350	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T2462	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1991 - METADATA *
T3290	- - - - - -	BUCHANAN	ELEV	CESPK	1DAY	01JAN1975 - METADATA *
T5392	- - - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T3194	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T1858	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5303	- - - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T3184	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1855	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5693	- - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T3321	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1856	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5595	- - - - - -	- - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01JAN1995 - 01SEP1999
T3248	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T1857	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5508	- - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T3202	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T1890	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3229	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1975 - METADATA *
T2470	- - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T3296	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1975 - METADATA *
T3253	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1975 - METADATA *
T3293	- - - - - -	- - - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1975 - METADATA *
T5860	- - - - - -	BUNNING RANCH	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999*
T3338	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1892	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5982	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T5968	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T1974	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5933	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T5919	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T1532	- - - - - -	CATHAY-BULL RUN RANCH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1118	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T625	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954 - METADATA *
T597	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954 - METADATA *
T1560	- - - - - -	CATHEYS VALLEY-WYRE RANCH	PRECIP-INC	TD3200	1DAY	01JAN1978 - METADATA *
T649	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1978 - METADATA *
T621	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1978 - METADATA *
T1650	- - - - - -	CEDAR POINT-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T1568	- - - - - -	COARSEGOLD-1 SW	PRECIP-INC	TD3200	1DAY	01JAN1977 - METADATA *
T2002	- - - - - -	FRESNO R NR OAKHURST	FLOW	DWRSJ	1HOUR	01OCT1991 - METADATA *
T2001	- - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1991 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ05.DSS** - *Continued*

T1437	- - - - - -	HIDDEN	ELEV	CESPK	1DAY	01JAN1975 - METADATA *
T1075	- - - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1233	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T1862	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T977	- - - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1157	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1859	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1449	- - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1510	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1860	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1309	- - - - - -	- - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1369	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T1861	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1219	- - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T1282	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T1900	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1337	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1975 - METADATA *
T527	- - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T1449	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1975 - METADATA *
T1376	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1975 - METADATA *
T1440	- - - - - -	- - - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1975 - METADATA *
T4682	- - - - - -	MAGOON	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999*
T2489	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1902	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4874	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T4862	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T1981	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4805	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T4758	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T1651	- - - - - -	MARIPOSA	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1622	- - - - - -	MARIPOSA-R S	PRECIP-INC	TD3200	1DAY	01JAN1984 - METADATA *
T439	- - - - - -	OAKHURST	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T818	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1906	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T637	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T621	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T1985	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T569	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T524	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T1635	- - - - - -	RAYMOND-10 N	PRECIP-INC	TD3200	1DAY	01JAN1962 - METADATA *
T1631	- - - - - -	RAYMOND-WHIPPLE RANCH	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T1869	- - - - - -	SAN JOAQUIN EXP RNG	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T1639	- - - - - -	SAN JOAQUIN-EXP RANGE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2947	- - - - - -	USONA 2 N	PRECIP-INC	TD3240	1HOUR	01APR1972 - METADATA *
T440	- - - - - -	WESTFALL	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T821	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1975 - METADATA *
T1913	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T638	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T622	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T1989	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T570	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T525	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA

* Record time span has missing periods.

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Catalog Created on Dec 20, 1999 at 14:57 File Created on Aug 25, 1999
Number of Records: 6894 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T2107	MELONES RES	11291000	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T1	- - - - - -	11291500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T7	- - - - - -	11292000	FLOW	HYDROCD	1DAY	01JAN1938 - METADATA *
T67	- - - - - -	11292500	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T3022	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T2119	- - - - - -	11292600	STORAGE	HYDROCD	1DAY	01JAN1957 - METADATA *
T5852	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T112	- - - - - -	11292610	FLOW	HYDROCD	1DAY	01JAN1972 - METADATA *
T138	- - - - - -	11292680	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T142	- - - - - -	11292700	FLOW	HYDROCD	1DAY	01JAN1955 - METADATA *
T3094	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T2159	- - - - - -	11292800	STORAGE	HYDROCD	1DAY	01JAN1957 - METADATA *
T5862	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T185	- - - - - -	11292820	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T210	- - - - - -	11292860	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T222	- - - - - -	11292900	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T3213	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T264	- - - - - -	11292901	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T277	- - - - - -	11293000	FLOW	HYDROCD	1DAY	01JAN1905 - METADATA *
T339	- - - - - -	11293200	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T2197	- - - - - -	11293350	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T2203	- - - - - -	11293370	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T2209	- - - - - -	11293460	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T365	- - - - - -	11293500	FLOW	HYDROCD	1DAY	01JAN1952 - METADATA *
T402	- - - - - -	11293580	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T3333	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1990 - METADATA *
T2215	- - - - - -	11293590	STORAGE	HYDROCD	1DAY	01JAN1989 - METADATA *
T412	- - - - - -	11293600	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T3428	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T423	- - - - - -	11293650	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T3561	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1993 - METADATA *
T427	- - - - - -	11293700	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T3597	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01DEC1988 - METADATA *
T434	- - - - - -	11293710	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T3659	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01DEC1988 - METADATA *
T441	- - - - - -	11293760	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T2223	- - - - - -	11293770	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T446	- - - - - -	11293850	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T448	- - - - - -	11294000	FLOW	HYDROCD	1DAY	01JAN1952 - METADATA *
T3708	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T494	- - - - - -	11294300	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T502	- - - - - -	11294400	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA *
T3732	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01APR1991 - METADATA *
T509	- - - - - -	11294500	FLOW	HYDROCD	1DAY	01JAN1914 - METADATA *
T3797	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01SEP1989 - METADATA *
T591	- - - - - -	11295000	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T608	- - - - - -	11295100	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T622	- - - - - -	11295210	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T2237	- - - - - -	11295220	STORAGE	HYDROCD	1DAY	01JAN1989 - METADATA *
T631	- - - - - -	11295230	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T640	- - - - - -	11295240	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T649	- - - - - -	11295250	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T2245	- - - - - -	11295260	STORAGE	HYDROCD	1DAY	01JAN1989 - METADATA *
T658	- - - - - -	11295270	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T3907	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01SEP1989 - METADATA *
T668	- - - - - -	11295300	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T680	- - - - - -	11295400	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T3956	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T710	- - - - - -	11295401	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T739	- - - - - -	11295500	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T762	- - - - - -	11295505	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T2253	- - - - - -	11295900	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T767	- - - - - -	11296500	FLOW	HYDROCD	1DAY	01JAN1913 - METADATA *
T2264	- - - - - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1935 - METADATA *
T833	- - - - - -	11297000	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T2082	- - - - - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1974 - METADATA *
T892	- - - - - -	11297200	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *

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T917	- - - - - -	11297500	FLOW	HYDROCD	1DAY	01JAN1937 - METADATA *
T2266	- - - - - -	11297700	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T978	- - - - - -	11298000	FLOW	HYDROCD	1DAY	01JAN1937 - METADATA *
T1039	- - - - - -	11298700	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA *
T2280	- - - - - -	11299000	STORAGE	HYDROCD	1DAY	01JAN1926 - METADATA *
T1047	- - - - - -	11299200	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T1070	- - - - - -	11299500	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T1108	- - - - - -	11299501	FLOW	HYDROCD	1DAY	01JAN1930 - METADATA *
T1139	- - - - - -	11299600	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T4029	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T5888	- - - - - -	11299995	ELEV	USGS	1HOUR	01OCT1988 - METADATA *
T1155	- - - - - -	- - - - - - - - - - - - - - - -	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T2326	- - - - - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1957 - METADATA *
T5874	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T1157	- - - - - -	11299996	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T1178	- - - - - -	11300000	FLOW	HYDROCD	1DAY	01JAN1915 - METADATA *
T1197	- - - - - -	11300500	FLOW	HYDROCD	1DAY	01JAN1913 - METADATA *
T4157	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T1282	- - - - - -	11301000	FLOW	HYDROCD	1DAY	01JAN1913 - METADATA *
T4267	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T1367	- - - - - -	11302000	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T4387	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T6444	- - - - - -	BEARDSLEY LAKE	FLOW-RES IN	TRI-DAM	1HOUR	01MAR1995 - METADATA *
T6447	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	TRI-DAM	1HOUR	01MAR1995 - METADATA *
T5293	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USBR	1DAY	01JAN1985 - METADATA *
T5201	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1985 - METADATA *
T6441	- - - - - -	- - - - - - - - - - - - - - - -	STORAGE	TRI-DAM	1HOUR	01MAR1995 - METADATA *
T241	- - - - - -	BLOODS CREEK	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T6792	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T3270	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1998 - 01SEP1999
T228	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1977 - METADATA *
T6661	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T3271	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998 - METADATA *
T3396	- - - - - -	BUMBLEBEE TRAILER PA	PRECIP-INC	TD3240	1HOUR	01FEB1964 - METADATA *
T3406	- - - - - -	CALAVERAS RANGER STN	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4481	- - - - - -	CALAVERAS-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6748	- - - - - -	CLARK FORK MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T4496	- - - - - -	COLD SPRINGS-CHALET	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T4498	- - - - - -	COLEVILLE-4 SE	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T3292	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1951 - METADATA *
T3267	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1951 - METADATA *
T6796	- - - - - -	CORRAL MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1980 - METADATA *
T6034	- - - - - -	DEADMAN CREEK	PRECIP-CUM	CDEC-CD	1HOUR	01SEP1987 - METADATA *
T541	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T6744	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T6036	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1987 - 01SEP1999
T543	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1987 - METADATA *
T6664	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T6038	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1987 - METADATA *
T6435	- - - - - -	DONNELLS	FLOW-RES IN	TRI-DAM	1HOUR	01MAR1995 - METADATA *
T6438	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	TRI-DAM	1HOUR	01MAR1995 - METADATA *
T5308	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USBR	1DAY	01JAN1986 - METADATA *
T6432	- - - - - -	- - - - - - - - - - - - - - - -	STORAGE	TRI-DAM	1HOUR	01MAR1995 - METADATA *
T4500	- - - - - -	DONNELLS-DAM	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T6771	- - - - - -	EAGLE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5711	- - - - - -	FISH LAKE VALLEY AERIAL MARKER	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - METADATA *
T623	- - - - - -	GIANELLI MEADOW	PRECIP-INC	CDEC-CD	1DAY	01JAN1988 - METADATA *
T6752	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1980 - METADATA *
T7213	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01SEP1998 - 01SEP1999
T617	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1984 - METADATA *
T6667	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T7214	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1998 - METADATA *
T5343	- - - - - -	GOODWIN DAM	FLOW-RES OUT	USBR	1DAY	01JAN1975 - METADATA *
T6798	- - - - - -	HELLS KITCHEN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T6778	- - - - - -	HERRING CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4563	- - - - - -	HUNTERS-DAM	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T3294	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1969 - METADATA *
T3269	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ06.DSS** - *Continued*

T4783	- - - - - -	LEAVITT LAKE	PRECIP-INC	NRCS	1DAY	01JAN1989 - METADATA *
T5729	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - 01JAN1990
T4848	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1989 - METADATA *
T6737	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	IR-DECADE	METADATA
T4892	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1989 - METADATA *
T4937	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1989 - METADATA *
T4737	- - - - - -	LEAVITT LAKE SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1990 - METADATA *
T4754	- - - - - -	LEAVITT MEADOWS	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T5714	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1920 - 01JAN1990
T4819	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1980 - METADATA *
T6739	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	IR-DECADE	METADATA
T4894	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1989 - METADATA *
T4939	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1989 - METADATA *
T4738	- - - - - -	LEAVITT MEADOWS SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T3861	- - - - - -	LONG BARN EXPERMENT	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4519	- - - - - -	LONG BARN-EXPERMENT STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T14662	- - - - - -	LOWER RELIEF VAL	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T1126	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1985 - METADATA *
T6670	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T14664	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T6754	- - - - - -	LOWER RELIEF VALLEY	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T6	- - - - - -	NEW MELONES	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T5	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T4049	- - - - - -	NEW MELONES DAM	PRECIP-INC	TD3240	1HOUR	01FEB1979 - METADATA *
T4564	- - - - - -	NEW MELONES DAM HQ	PRECIP-INC	TD3200	1DAY	01JAN1991 - METADATA *
T4205	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JAN1994 - METADATA *
T3311	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1992 - METADATA *
T3286	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1992 - METADATA *
T5272	- - - - - -	NEW MELONES RESERVOIR	FLOW-RES IN	USBR	1DAY	01JAN1979 - METADATA *
T5368	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1979 - METADATA *
T5230	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1979 - METADATA *
T5410	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	USBR	1DAY	01JAN1979 - METADATA *
T5389	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	USBR	1DAY	01JAN1979 - METADATA *
T4523	- - - - - -	NEW MELONES-DAM	PRECIP-INC	TD3200	1DAY	01JAN1979 - METADATA *
T3297	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1979 - METADATA *
T3272	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1979 - METADATA *
T6802	- - - - - -	NIAGARA FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4756	- - - - - -	POISON FLAT	PRECIP-INC	NRCS	1DAY	01JAN1980 - METADATA *
T4740	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1940 - 01JAN1990
T4821	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1980 - METADATA *
T6733	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	IR-DECADE	METADATA
T4887	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1987 - METADATA *
T4932	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1987 - METADATA *
T4746	- - - - - -	POISON FLAT SNOTEL	SNOW-WEQV	NRCS	IR-DECADE	01JAN1980 - METADATA *
T6785	- - - - - -	RELIEF DAM	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T6795	- - - - - -	SAPPS HOLLOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1990 - METADATA *
T6761	- - - - - -	SODA CREEK FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4265	- - - - - -	SONORA JUNCTION	PRECIP-INC	TD3240	1HOUR	01SEP1959 - METADATA *
T4751	- - - - - -	SONORA PASS	PRECIP-INC	NRCS	1DAY	01JAN1978 - METADATA *
T5732	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	NRCS	IR-DECADE	01JAN1930 - 01JAN1990
T4816	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1978 - METADATA *
T6741	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	IR-DECADE	METADATA
T4881	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	NRCS	1DAY	01JAN1982 - METADATA *
T4926	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	NRCS	1DAY	01JAN1982 - METADATA *
T5722	- - - - - -	SONORA PASS BRIDGE	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - METADATA *
T4748	- - - - - -	SONORA PASS PILLOW	SNOW-WEQV	NRCS	IR-DECADE	01JAN1970 - METADATA *
T17411	- - - - - -	STANISLAUS MDW	PRECIP-CUM	CDEC-CD	1HOUR	01NOV1986 - METADATA *
T1811	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T17413	- - - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01NOV1986 - 01AUG1999
T1810	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1987 - METADATA *
T6673	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T17415	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01NOV1986 - METADATA *
T6768	- - - - - -	STANISLAUS MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T4565	- - - - - -	STANISLAUS-PH	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T2	- - - - - -	TULLOCH	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T5251	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USBR	1DAY	01JAN1979 - METADATA *
T53	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T5322	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USBR	1DAY	01JAN1979 - METADATA *
T5216	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1986 - METADATA *
T5726	- - - - - -	WOLF CREEK - AERIAL MARKER	SNOW-WEQV	NRCS	IR-DECADE	01JAN1960 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SJ07.DSS**

Catalog Created on Dec 20, 1999 at 14:59 File Created on Aug 25, 1999
Number of Records: 6162 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1	SJ R @ FRIANT DAM	11226000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T21	- - - - - - - -	11226500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T70	- - - - - - - -	11227000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T75	- - - - - - - -	11227500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T78	- - - - - - - -	11228000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T83	- - - - - - - -	11228500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T113	- - - - - - - -	11229500	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T2369	- - - - - - - -	11229600	STORAGE	HYDROCD	1DAY	01JAN1925 - METADATA *
T187	- - - - - - - -	11230000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T250	- - - - - - - -	11230200	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T263	- - - - - - - -	11230215	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T286	- - - - - - - -	11230500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T363	- - - - - - - -	11230520	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T380	- - - - - - - -	11230530	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T401	- - - - - - - -	11230560	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T413	- - - - - - - -	11230600	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T427	- - - - - - - -	11230650	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T433	- - - - - - - -	11230670	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T2441	- - - - - - - -	11231000	STORAGE	HYDROCD	1DAY	01JAN1954 - METADATA *
T446	- - - - - - - -	11231500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T523	- - - - - - - -	11231550	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T538	- - - - - - - -	11231600	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T559	- - - - - - - -	11231700	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T572	- - - - - - - -	11232000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T580	- - - - - - - -	11232500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T597	- - - - - - - -	11234500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T2484	- - - - - - - -	11234700	STORAGE	HYDROCD	1DAY	01JAN1959 - METADATA *
T621	- - - - - - - -	11234750	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T639	- - - - - - - -	11234760	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T678	- - - - - - - -	11235000	FLOW	HYDROCD	1DAY	01JAN1912 - METADATA *
T724	- - - - - - - -	11235100	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T742	- - - - - - - -	11235490	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T747	- - - - - - - -	11235500	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T2522	- - - - - - - -	11236000	STORAGE	HYDROCD	1DAY	01JAN1926 - METADATA *
T818	- - - - - - - -	11236080	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T828	- - - - - - - -	11237000	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T899	- - - - - - - -	11237500	FLOW	HYDROCD	1DAY	01JAN1927 - METADATA *
T970	- - - - - - - -	11237600	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T994	- - - - - - - -	11237700	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T1018	- - - - - - - -	11238000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T1033	- - - - - - - -	11238100	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1051	- - - - - - - -	11238250	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T1062	- - - - - - - -	11238270	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T1072	- - - - - - - -	11238380	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1090	- - - - - - - -	11238400	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1108	- - - - - - - -	11238500	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T1135	- - - - - - - -	11238550	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1153	- - - - - - - -	11238600	FLOW	HYDROCD	1DAY	01JAN1973 - METADATA *
T1174	- - - - - - - -	11239000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T1232	- - - - - - - -	11239300	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T2593	- - - - - - - -	11239500	STORAGE	HYDROCD	1DAY	01JAN1926 - METADATA *
T1242	- - - - - - - -	11241500	FLOW	HYDROCD	1DAY	01JAN1916 - METADATA *
T1278	- - - - - - - -	11241800	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T2662	- - - - - - - -	11241950	STORAGE	HYDROCD	1DAY	01JAN1965 - METADATA *
T1296	- - - - - - - -	11241999	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T1316	- - - - - - - -	11242000	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T1364	- - - - - - - -	11242350	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T1375	- - - - - - - -	11242400	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T4182	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T1410	- - - - - - - -	11243300	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T2694	- - - - - - - -	11243400	STORAGE	HYDROCD	1DAY	01JAN1978 - METADATA *
T1433	- - - - - - - -	11243500	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T1491	- - - - - - - -	11244000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T1549	- - - - - - - -	11244100	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1567	- - - - - - - -	11245000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T1576	- - - - - - - -	11245500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T1583	- - - - - - - -	11246000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ07.DSS** - *Continued*

T1587	- - - - - - - -	11246500	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T1634	- - - - - - - -	11246530	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1652	- - - - - - - -	11246570	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1670	- - - - - - - -	11246590	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T1688	- - - - - - - -	11246599	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T1722	- - - - - - - -	11246610	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T2713	- - - - - - - -	11246650	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T1740	- - - - - - - -	11246700	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T1765	- - - - - - - -	11246950	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T1785	- - - - - - - -	11247000	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T1837	- - - - - - - -	11247050	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T1852	- - - - - - - -	11247200	FLOW	HYDROCD	1DAY	01JAN1968 - METADATA *
T1856	- - - - - - - -	11247500	FLOW	HYDROCD	1DAY	01JAN1946 - METADATA *
T1862	- - - - - - - -	11248000	FLOW	HYDROCD	1DAY	01JAN1936 - METADATA *
T2730	- - - - - - - -	11250100	STORAGE	HYDROCD	1DAY	01JAN1941 - METADATA *
T5032	- - - - - - - -	AGNEW PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T517	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1989 - 01SEP1999*
T17	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T4913	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T518	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1989 - METADATA *
T3844	- - - - - - - -	AUBERRY-1 NW	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T2773	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2536	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5059	- - - - - - - -	BADGER FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T3527	- - - - - - - -	BIG CREEK-PH 1	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2819	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2582	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T1974	- - - - - - - -	BIG MEADOWS	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T133	- - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T1976	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01JUL1999*
T125	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T4916	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1978	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T3542	- - - - - - - -	BISHOP CREEK-INTAKE 2	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T3577	- - - - - - - -	BISHOP-ARPT	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2834	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2597	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3623	- - - - - - - -	BISHOP-UNION CARBIDE	PRECIP-INC	TD3200	1DAY	01JAN1957 - METADATA *
T2880	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1957 - METADATA *
T2643	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1957 - METADATA *
T3636	- - - - - - - -	CENTRAL CAMP	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5074	- - - - - - - -	CHILKOOT LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T482	- - - - - - - -	CHILKOOT MEADOW	PRECIP-INC	CDEC-CD	1DAY	01JAN1995 - METADATA *
T5092	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4576	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T470	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1985 - METADATA *
T4919	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4578	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *
T5120	- - - - - - - -	CHIQUITO CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5099	- - - - - - - -	CLOVER MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5026	- - - - - - - -	COLBY MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T5052	- - - - - - - -	CORA LAKES	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5046	- - - - - - - -	COYOTE LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T5039	- - - - - - - -	DUTCH LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T4996	- - - - - - - -	EMERALD LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T3177	- - - - - - - -	FLORENCE LAKE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T5085	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3638	- - - - - - - -	FLORENCE-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3642	- - - - - - - -	GEM LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2893	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2656	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T728	- - - - - - - -	GRAVEYARD MEADOW	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T7647	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T720	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1982 - METADATA *
T4922	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7649	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *
T808	- - - - - - - -	GREEN MOUNTAIN	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T7617	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T790	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1972 - METADATA *
T4925	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7619	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ07.DSS** - *Continued*

T5008	- - - - - - - -	HEART LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T967	- - - - - - - -	HUNTINGTON LAKE	PRECIP-INC	CDEC-CD	1DAY	01JAN1988 - METADATA *
T3783	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T5106	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T9296	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T964	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1987 - METADATA *
T4928	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T9297	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *
T3684	- - - - - - - -	HUNTINGTON-LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2896	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T2659	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5113	- - - - - - - -	JACKASS MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5165	- - - - - - - -	KAISER PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T1042	- - - - - - - -	KAISER POINT	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T10012	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1998 - 01SEP1999
T1021	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T4931	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10013	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1998 - METADATA *
T4805	- - - - - - - -	KERCKHOFF	PRECIP-INC	PG&E	1DAY	01JAN1956 - METADATA *
T3719	- - - - - - - -	LAKE SABRINA	PRECIP-INC	TD3200	1DAY	01JAN1975 - METADATA *
T5069	- - - - - - - -	LAKE THOMAS A. EDISON	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T3830	- - - - - - - -	MAMMOTH LAKES R S	PRECIP-INC	TD3200	1DAY	01JAN1994 - METADATA *
T2942	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1993 - METADATA *
T2705	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1993 - METADATA *
T3738	- - - - - - - -	MEADOW LAKE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2943	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1964 - METADATA *
T2706	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1964 - METADATA *
T4991	- - - - - - - -	MONO PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T4389	- - - - - - - -	MOUNT GIVENS	PRECIP-INC	TD3240	1HOUR	01DEC1964 - METADATA *
T4443	- - - - - - - -	MUSICK CREEK GUARD S	PRECIP-INC	TD3240	1HOUR	01DEC1967 - METADATA *
T5063	- - - - - - - -	NELLIE LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T3766	- - - - - - - -	NORTH FORK-R S	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2944	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T2707	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T5002	- - - - - - - -	PIONEER BASIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T5158	- - - - - - - -	PIUTE PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5127	- - - - - - - -	POISON MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T1427	- - - - - - - -	POISON RIDGE	PRECIP-INC	CDEC-CD	1DAY	01JAN1989 - METADATA *
T13872	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T1407	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T4934	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T13873	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *
T5020	- - - - - - - -	ROSE MARIE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T398	- - - - - - - -	SAN JOAQUIN R NEAR AUBERRY	FLOW	CDEC-WEB	1HOUR	01OCT1997 - METADATA *
T5172	- - - - - - - -	- - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T5081	- - - - - - - -	TAMARACK CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1960 - METADATA *
T1906	- - - - - - - -	TAMARACK SUMMIT	PRECIP-INC	CDEC-CD	1DAY	01JAN1988 - METADATA *
T19171	- - - - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1998 - 01SEP1999
T1896	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1980 - METADATA *
T4937	- - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T19172	- - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1998 - METADATA *
T5014	- - - - - - - -	VOLCANIC KNOB	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SJ08.DSS**

Catalog Created on Dec 20, 1999 at 15:01 File Created on Aug 25, 1999
Number of Records: 7739 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T1885	SJ R @ HILLS FERRY	11249500	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T23	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T1	- - - - - - - - - -	11250000	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T22	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T142	- - - - - - - - - -	11251500	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T158	- - - - - - - - - -	11251600	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T164	- - - - - - - - - -	11252500	FLOW	HYDROCD	1DAY	01JAN1894 - METADATA *
T174	- - - - - - - - - -	11253000	FLOW	HYDROCD	1DAY	01JAN1952 - METADATA *
T184	- - - - - - - - - -	11254000	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T226	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T200	- - - - - - - - - -	11255500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T218	- - - - - - - - - -	11255550	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T225	- - - - - - - - - -	11256000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T240	- - - - - - - - - -	11259900	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T251	- - - - - - - - - -	11260000	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T224	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	PHASE1	1HOUR	01MAR1995 - METADATA *
T262	- - - - - - - - - -	11260001	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T273	- - - - - - - - - -	11261000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T302	- - - - - - - - - -	11261100	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T2986	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T315	- - - - - - - - - -	11261500	FLOW	HYDROCD	1DAY	01JAN1936 - METADATA *
T3765	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T357	- - - - - - - - - -	11262800	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T366	- - - - - - - - - -	11262900	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T3777	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T379	- - - - - - - - - -	11263000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T4239	- - - - - - - - - -	BEAR	ELEV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2323	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T4388	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4051	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2303	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3948	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1851	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2295	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T3949	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1841	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2330	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1955 - METADATA *
T3950	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1831	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2319	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3951	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1881	- - - - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01MAR1994 - 01AUG1999
T4117	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T4008	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1402	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *
T1651	- - - - - - - - - -	BEAR CR AT MCKEE RD	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2372	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1957 - METADATA *
T3963	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1909	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T5297	- - - - - - - - - -	BEAR CR BLW EASTSIDE CN	FLOW	DWRSJ	1HOUR	01OCT1988 - METADATA *
T5296	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1988 - METADATA *
T3290	- - - - - - - - - -	BLK RASCAL DIV	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2277	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1956 - METADATA *
T3952	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1475	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T2048	- - - - - - - - - -	BURNS	ELEV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1928	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T4392	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1631	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T1908	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3953	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1911	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01MAR1994 - 01SEP1999
T1900	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T3954	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1901	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01MAR1994 - 01SEP1999
T1952	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1949 - METADATA *
T3955	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA

HECDSS Condensed Catalog of Record Pathnames in File **SJ08.DSS** - *Continued*

T1891	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01MAR1994 - 01SEP1999
T1924	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3956	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1941	- - - - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01MAR1994 - 01AUG1999
T1912	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T4010	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1403	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *
T353	- - - - - - - - - -	COTTONWOOD CREEK (USBR)	FLOW	CDEC-WEB	1HOUR	01FEB1998 - METADATA *
T855	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01DEC1997 - METADATA *
T6145	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T4431	- - - - - - - - - -	EASTSIDE BP BLW MARIPOSA BP	FLOW	DWRSJ	1HOUR	01OCT1988 - METADATA *
T4430	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1988 - METADATA *
T4689	- - - - - - - - - -	EASTSIDE BP NR EL NIDO	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T4688	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T4269	- - - - - - - - - -	FIREBAUGH TELLES	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T4268	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T17	- - - - - - - - - -	FRIANT	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T18	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T3260	- - - - - - - - - -	FRIANT DAM (MILLERTON)	FLOW-RES IN	USBR	1DAY	01JAN1975 - METADATA *
T3285	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1975 - METADATA *
T3235	- - - - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1975 - METADATA *
T3334	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	USBR	1DAY	01JAN1976 - METADATA *
T3310	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	USBR	1DAY	01JAN1976 - METADATA *
T1784	- - - - - - - - - -	FRIANT GOVERNMENT CP	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2003	- - - - - - - - - -	FRIANT-GOVERNMENT CAMP	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1441	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1098	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4307	- - - - - - - - - -	KESTERSON	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T4306	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T2049	- - - - - - - - - -	LE GRAND	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T1487	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1144	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T25	- - - - - - - - - -	LITTLE DRY CREEK (USBR)	FLOW	CDEC-WEB	1HOUR	01FEB1998 - METADATA *
T712	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01DEC1997 - METADATA *
T6146	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T1831	- - - - - - - - - -	LITTLE PANOCHE DET D	PRECIP-INC	TD3240	1HOUR	01JUL1968 - METADATA *
T2082	- - - - - - - - - -	LITTLE PANOCHE-DET DAM	PRECIP-INC	TD3200	1DAY	01JAN1968 - METADATA *
T1520	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T1177	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T1	- - - - - - - - - -	LOS BANOS	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T1	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T4283	- - - - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T2090	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1948 - METADATA *
T4282	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1528	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1185	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2136	- - - - - - - - - -	LOS BANOS-DET RESV	PRECIP-INC	TD3200	1DAY	01JAN1968 - METADATA *
T1574	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T1231	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T5850	- - - - - - - - - -	MADERA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T2162	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1948 - METADATA *
T5849	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1600	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1257	- - - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4808	- - - - - - - - - -	MARIPOSA	ELEV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2553	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T4395	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1641	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2444	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3959	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1971	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2422	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T3960	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1961	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2599	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1948 - METADATA *
T3961	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1951	- - - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01MAR1994 - 01SEP1999
T2531	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3962	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2001	- - - - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01MAR1994 - 01AUG1999
T4679	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T4021	- - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1404	- - - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ08.DSS** - *Continued*

T1919	- - - - - - - - -	MENDOTA 1 NNW	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2208	- - - - - - - - -	MENDOTA-1 NNW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2411	- - - - - - - - -	MENDOTA-DAM	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T5874	- - - - - - - - -	MERCED	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T5873	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T2032	- - - - - - - - -	MERCED 2	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T2295	- - - - - - - - -	MERCED-2	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2412	- - - - - - - - -	MERCED-MUNICIPAL ARPT	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1646	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T1303	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T2299	- - - - - - - - -	MERCEY-HOT SPRINGS	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T189	- - - - - - - - -	OWENS	ELEV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T148	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T4398	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1661	- - - - - - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T31	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3964	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2031	- - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01MAR1994 - 01SEP1999
T3	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T3965	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2021	- - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01MAR1994 - 01SEP1999
T176	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1949 - METADATA *
T3966	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2011	- - - - - - - - -	- - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01MAR1994 - 01SEP1999
T144	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T3967	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2061	- - - - - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01MAR1994 - 01AUG1999
T62	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T4030	- - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1405	- - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *
T5880	- - - - - - - - -	PANOCHE	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T5879	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T2638	- - - - - - - - -	PANOCHE CREEK	PRECIP-INC	TD3240	1HOUR	01JAN1964 - METADATA *
T4163	- - - - - - - - -	PANOCHE DRAIN NR DOS PALOS	FLOW	DWRSJ	1HOUR	01MAR1995 - METADATA *
T4162	- - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01MAR1995 - METADATA *
T2318	- - - - - - - - -	PANOCHE-CREEK	PRECIP-INC	TD3200	1DAY	01JAN1953 - METADATA *
T1692	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1953 - METADATA *
T1349	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1953 - METADATA *
T2325	- - - - - - - - -	SALINAS-MUNICIPAL AP	PRECIP-INC	TD3200	1DAY	01JAN1930 - METADATA *
T1700	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1930 - METADATA *
T1357	- - - - - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1930 - METADATA *
T4991	- - - - - - - - -	SALT SLOUGH NR STEVINSON	FLOW	DWRSJ	1HOUR	01OCT1986 - METADATA *
T4990	- - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1986 - METADATA *
T5517	- - - - - - - - -	SAN JOAQUIN R NR STEVINSON	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T5516	- - - - - - - - -	- - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T2692	- - - - - - - - -	SAN LUIS DAM	PRECIP-INC	TD3240	1HOUR	01JAN1964 - METADATA *
T2721	- - - - - - - - -	WHITE ROCK	PRECIP-INC	CESPK	1DAY	01JAN1989 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **SJ09.DSS**

Catalog Created on Dec 20, 1999 at 15:05 File Created on Aug 25, 1999
Number of Records: 19798 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T11042	SJ R @ MOUTH	11270900	FLOW	HYDROCD	1DAY	01JAN1900 - METADATA *
T12055	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1991 - METADATA *
T11372	- - - - - - -	11271290	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T14212	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T11488	- - - - - - -	11271320	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T14374	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T11598	- - - - - - -	11271500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T11700	- - - - - - -	11272500	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T14508	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T11894	- - - - - - -	11273000	FLOW	HYDROCD	1DAY	01JAN1941 - METADATA *
T12020	- - - - - - -	11274000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T11044	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T12280	- - - - - - -	11274500	FLOW	HYDROCD	1DAY	01JAN1931 - METADATA *
T14894	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T12451	- - - - - - -	11274538	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA *
T15176	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01APR1992 - METADATA *
T12482	- - - - - - -	11274550	FLOW	HYDROCD	1DAY	01JAN1995 - METADATA *
T12928	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01JAN1996 - METADATA *
T12498	- - - - - - -	11274554	FLOW	HYDROCD	1DAY	01JAN1992 - METADATA *
T14297	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01APR1993 - METADATA *
T12510	- - - - - - -	11274560	FLOW	HYDROCD	1DAY	01JAN1991 - METADATA *
T12578	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01MAY1992 - METADATA *
T12522	- - - - - - -	11274600	FLOW	HYDROCD	1DAY	01JAN1963 - METADATA *
T12551	- - - - - - -	11274610	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T12577	- - - - - - -	11274630	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T15451	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T12703	- - - - - - -	11288500	FLOW	HYDROCD	1DAY	01JAN1895 - METADATA *
T12780	- - - - - - -	11289000	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T15848	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13124	- - - - - - -	11289500	FLOW	HYDROCD	1DAY	01JAN1898 - METADATA *
T10990	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13220	- - - - - - -	11289501	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T13440	- - - - - - -	11289650	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T16296	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13546	- - - - - - -	11289651	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T13646	- - - - - - -	11289660	FLOW	HYDROCD	1DAY	01JAN1990 - METADATA *
T16466	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01MAR1991 - METADATA *
T13670	- - - - - - -	11290000	FLOW	HYDROCD	1DAY	01JAN1894 - METADATA *
T15575	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01DEC1988 - METADATA *
T13779	- - - - - - -	11300600	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T14273	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T11515	- - - - - - -	11300700	FLOW	HYDROCD	1DAY	01JAN1981 - METADATA *
T10976	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13832	- - - - - - -	11300800	FLOW	HYDROCD	1DAY	01JAN1982 - METADATA *
T12356	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13864	- - - - - - -	11302500	FLOW	HYDROCD	1DAY	01JAN1895 - METADATA *
T13296	- - - - - - -	11303000	FLOW	HYDROCD	1DAY	01JAN1940 - METADATA *
T15950	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T12856	- - - - - - -	11303500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T16156	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13313	- - - - - - -	11304000	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T13998	- - - - - - -	11312676	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T13865	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T13425	- - - - - - -	11313000	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T13691	- - - - - - -	11313405	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T11055	- - - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - - -	USGS	1HOUR	01OCT1987 - METADATA *
T13208	- - - - - - -	11337000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T14097	- - - - - - -	11337500	FLOW	HYDROCD	1DAY	01JAN1952 - METADATA *
T20949	- - - - - - -	ALAMO-1 N	PRECIP-INC	TD3200	1DAY	01JAN1956 - METADATA *
T17060	- - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T20946	- - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T17187	- - - - - - -	ANTIOCH 5 S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T20964	- - - - - - -	ANTIOCH-5 S	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T20261	- - - - - - -	ANTIOCH-FIBREBRD MILLS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T20807	- - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T20120	- - - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **SJ09.DSS** - *Continued*

T18707	- - - - - -	ANTIOCH-PUMPING PLANT 3	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T18071	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954 - METADATA *
T21063	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954 - METADATA *
T21079	- - - - - -	BENSONS-FERRY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T36507	- - - - - -	BRENTWOOD	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T36506	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T14254	- - - - - -	BRENTWOOD 6 SW	PRECIP-INC	TD3240	1HOUR	01AUG1950 - METADATA *
T14057	- - - - - -	BRENTWOOD-6 SW	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T16554	- - - - - -	BUENA VISTA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T12441	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T12849	- - - - - -	CASTLE ROCK	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T18767	- - - - - -	CASTLE ROCK-RAD LAB	PRECIP-INC	TD3200	1DAY	01JAN1969 - METADATA *
T20093	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T20280	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA *
T11461	- - - - - -	CLAYTON 1 SW	PRECIP-INC	TD3240	1HOUR	01JAN1956 - METADATA *
T12011	- - - - - -	CONCORD-2 SE	PRECIP-INC	TD3200	1DAY	01JAN1956 - METADATA *
T20565	- - - - - -	CONCORD-3 E	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T20271	- - - - - -	DEL PUERTO-ROAD CAMP	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T18743	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1969 - METADATA *
T20090	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1969 - METADATA *
T20413	- - - - - -	DENAIR-3 NNE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T11723	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T19412	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T37226	- - - - - -	DRY CR NR MODESTO	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T37225	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T5174	- - - - - -	DUCK CR DIV	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T2905	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1951 - METADATA *
T26746	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2308	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T6473	- - - - - -	DUCK CR NR FARMINGTON	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T3456	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1979 - METADATA *
T26745	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2986	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T1390	- - - - - -	FARMINGTON	ELEV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1414	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1950 - METADATA *
T36616	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1074	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1213	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1950 - METADATA *
T26748	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T976	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1142	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1950 - METADATA *
T26749	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1448	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1495	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1950 - METADATA *
T26750	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1308	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1371	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T26751	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1218	- - - - - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T1320	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1987 - METADATA *
T26817	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T834	- - - - - -	FLOWERS MTN	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T990	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1971 - METADATA *
T26819	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T887	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01NOV1995 - 01SEP1999
T866	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T36620	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T855	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T853	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T31722	- - - - - -	FRENCH CMP SL NR FRENCH CMP	FLOW	DWRC	1DAY	01JAN1975 - METADATA *
T36071	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T31746	- - - - - -	GEORGIANA SL @ MOKELUMNE R	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T21178	- - - - - -	GERBER-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T21072	- - - - - -	GILROY-14 ENE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T21205	- - - - - -	GILROY-14 NE	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T33420	- - - - - -	GRANTLINE CN @ TRACY RD BR	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T33544	- - - - - -	GRANTLINE CN ABOVE DAM	STAGE	DWRC	1HOUR	01AUG1996 - METADATA *
T16842	- - - - - -	HERNANDEZ-2 NW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T21190	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T21126	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1960 - METADATA *
T15235	- - - - - -	HOLLISTER 9 ENE	PRECIP-INC	TD3240	1HOUR	01MAR1962 - METADATA *

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T19921	- - - - - -	IDRIA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T20551	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T20352	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T21260	- - - - - -	KERLINGER	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T13627	- - - - - -	KNIGHTS FERRY-2 SE	PRECIP-INC	TD3200	1DAY	01JAN1958 - METADATA *
T19165	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1959 - METADATA *
T16299	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1959 - METADATA *
T19910	- - - - - -	LATHROP	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T1073	- - - - - -	LITTLEJOHN @ FARMINGTON	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T1182	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1948 - METADATA *
T26747	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T529	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T20867	- - - - - -	LIVERMORE	PRECIP-INC	TD3200	1DAY	01JAN1930 - METADATA *
T17505	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1930 - METADATA *
T21355	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1929 - METADATA *
T22318	- - - - - -	LIVERMORE LL300	PRECIP-INC	LLNL	1HOUR	01MAR1995 - METADATA *
T22321	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	LLNL	1HOUR	01MAR1995 - METADATA *
T20938	- - - - - -	LONE TREE-CANYON	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T21404	- - - - - -	LOS BANOS-ARBURUA RANCH	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T21432	- - - - - -	MANDEVILLE-ISLAND	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T21428	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T20393	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T36531	- - - - - -	MANTECA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17020	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1965 - METADATA *
T36530	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T21455	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1965 - METADATA *
T21468	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1965 - METADATA *
T16421	- - - - - -	MERCED FALLS	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T37648	- - - - - -	MERCED R @ CRESSY	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T37647	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T37978	- - - - - -	MERCED R BLW SNELLING	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T37977	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T37556	- - - - - -	MERCED R NR STEVINSON	FLOW	DWRSJ	1HOUR	01OCT1995 - METADATA *
T37555	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1995 - METADATA *
T46	- - - - - -	MERCED RIVER BELOW MERCED FALLS	FLOW	CDEC-WEB	1HOUR	01JUN1998 - METADATA *
T973	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01MAY1997 - METADATA *
T39339	- - - - - -	- - - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T34625	- - - - - -	MIDDLE R @ BACON ISLAND	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T34954	- - - - - -	MIDDLE R @ BORDEN HIGHWAY	STAGE	DWRC	1HOUR	01NOV1982 - METADATA *
T34818	- - - - - -	MIDDLE R @ MIDDLE R	STAGE	DWRC	1HOUR	01DEC1987 - METADATA *
T35290	- - - - - -	MIDDLE R @ MOWRY BR	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T35148	- - - - - -	MIDDLE R @ TRACY RD BR	STAGE	DWRC	1HOUR	01OCT1987 - METADATA *
T36555	- - - - - -	MODESTO	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16866	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1931 - METADATA *
T36554	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T20213	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T20272	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1931 - METADATA *
T18221	- - - - - -	MODESTO 2	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T15126	- - - - - -	MODESTO-2	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T32143	- - - - - -	MOKELUMNE R NR THORNTON	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T306	- - - - - -	MOSSDALE BRIDGE	STAGE	CDEC-WEB	1HOUR	01JAN1999 - METADATA *
T16601	- - - - - -	MOUNT DIABLO STATE P	PRECIP-INC	TD3240	1HOUR	01JAN1956 - METADATA *
T21548	- - - - - -	MOUNT DIABLO-JUNCTION	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T20803	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1951 - METADATA *
T19059	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1951 - METADATA *
T20079	- - - - - -	NEWMAN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T21616	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T21644	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T18799	- - - - - -	OAKDALE-WOODWARD DAM	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T20134	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T21265	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T33092	- - - - - -	OLD R @ BACON ISLAND	STAGE	DWRC	1HOUR	01MAR1988 - METADATA *
T33555	- - - - - -	OLD R @ CLIFTON COURT FERRY	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T34116	- - - - - -	OLD R @ HEAD	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T33839	- - - - - -	OLD R BARRIER NR DMC (ABV)	STAGE	DWRC	1HOUR	01OCT1991 - METADATA *
T33749	- - - - - -	OLD R BARRIER NR DMC (BLW)	STAGE	DWRC	1HOUR	01OCT1991 - METADATA *
T33225	- - - - - -	OLD R NR BYRON	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T33920	- - - - - -	OLD R NR TRACY RD BR	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T38896	- - - - - -	ORESTIMBA CR BLW HIGHWAY 33	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T38895	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T18033	- - - - - -	PACHECO PASS	PRECIP-INC	TD3240	1HOUR	01DEC1949 - METADATA *
T19663	- - - - - -	PACHECO-PASS	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T15297	- - - - - -	PANOCHE-2 W	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *

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T21550	- - - - - -	PFEIFFER-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T793	- - - - - -	ROCK CR @FRM	FLOW	CESPK	1HOUR	01JAN1995 - 01MAR1997
T923	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1950 - METADATA *
T26753	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T357	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T32898	- - - - - -	ROCK SL @ CONTRA COSTA CN	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T21693	- - - - - -	SAN BENITO	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T18010	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T12271	- - - - - -	SAN FELIPE HWY STN	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T21696	- - - - - -	SAN FELIPE-HWY STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T38308	- - - - - -	SAN JOAQUIN R @ MAZE ROAD BR	FLOW	DWRSJ	1HOUR	01OCT1988 - METADATA *
T38307	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1988 - METADATA *
T38566	- - - - - -	SAN JOAQUIN R @ PATTERSON BR	FLOW	DWRSJ	1HOUR	01OCT1985 - METADATA *
T38565	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1985 - METADATA *
T22029	- - - - - -	SAN LUIS RESERVOIR	FLOW-RES IN	USBR	1DAY	01JAN1973 - METADATA *
T22056	- - - - - -	- - - - - - - - - - - - - - - - - -	FLOW-RES OUT	USBR	1DAY	01JAN1973 - METADATA *
T22002	- - - - - -	- - - - - - - - - - - - - - - - - -	PRECIP-INC	USBR	1DAY	01JAN1973 - METADATA *
T18298	- - - - - -	SAN LUIS-DAM	PRECIP-INC	TD3200	1DAY	01JAN1962 - METADATA *
T21711	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T18216	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T31945	- - - - - -	SF MOKELUMNE @ NEW HOPE BR	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T32340	- - - - - -	SJ R @ ANTIOCH	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T36239	- - - - - -	SJ R @ BRANDT BR	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T35682	- - - - - -	SJ R @ RINDGE PUMP	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T32714	- - - - - -	SJ R @ SAN ANDREAS LANDING	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T35484	- - - - - -	SJ R @ VENICE ISLAND	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T36710	- - - - - -	STANISLAUS R @ KOETITZ RANCH	FLOW	DWRSJ	1HOUR	01OCT1988 - METADATA *
T36709	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1988 - METADATA *
T36968	- - - - - -	STANISLAUS R @ ORANGE BLOSSOM BR	FLOW	DWRSJ	1HOUR	01OCT1988 - METADATA *
T36967	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01OCT1988 - METADATA *
T19370	- - - - - -	STAYTON MINE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T19547	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T19657	- - - - - -	STOCKTON DISPOSAL PL	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T19968	- - - - - -	STOCKTON METRO ARPT	PRECIP-INC	TD3240	1HOUR	01NOV1948 - METADATA *
T35884	- - - - - -	STOCKTON SHIP CH @ BURNS	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T21736	- - - - - -	STOCKTON-DISPOSAL PLANT	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T15153	- - - - - -	STOCKTON-METROPOLITAN AP	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T21759	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T15522	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T21809	- - - - - -	STOCKTON-MOWRY BRIDGE	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T18539	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T21211	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T32526	- - - - - -	THREE MILE SL @ SJ R	STAGE	DWRC	1HOUR	01OCT1982 - METADATA *
T34475	- - - - - -	TOM PAINE SL ABOVE INTAKE	STAGE	DWRC	1HOUR	01MAY1984 - METADATA *
T34313	- - - - - -	TOM PAINE SL ABOVE MOUTH	STAGE	DWRC	1HOUR	01OCT1985 - METADATA *
T17594	- - - - - -	TRACY	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T20350	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T17965	- - - - - -	TRACY 2 SSE	PRECIP-INC	TD3240	1HOUR	01OCT1951 - METADATA *
T18056	- - - - - -	TRACY-CARBONA	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T21843	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1949 - METADATA *
T17497	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1949 - METADATA *
T20762	- - - - - -	TRACY-PUMPING PLANT	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T21761	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T21780	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T31713	- - - - - -	TUOLUMNE R @ HICKMAN BR	FLOW	DWRSJ	1HOUR	01MAR1995 - METADATA *
T31712	- - - - - -	- - - - - - - - - - - - - - - - - -	STAGE	DWRSJ	1HOUR	01MAR1995 - METADATA *
T15450	- - - - - -	TURLOCK-#2	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T13716	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1956 - METADATA *
T18248	- - - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1985 - METADATA *
T21915	- - - - - -	UPPER TRES PINOS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T14824	- - - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T18668	- - - - - -	WALNUT CREEK 2 ENE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T21295	- - - - - -	WALNUT CREEK-2 ENE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T20324	- - - - - -	WALNUT CREEK-4 E	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **TUL01.DSS**

Catalog Created on Dec 20, 1999 at 15:14 File Created on Aug 25, 1999
Number of Records: 17318 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T12430	FRESNO RIVER	11192940	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T12788	- - - - - -	11193010	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T12474	- - - - - -	11193020	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T12554	- - - - - -	11193030	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T12792	- - - - - -	11193031	FLOW	HYDROCD	1DAY	01JAN1989 - METADATA *
T12936	- - - - - -	11194000	FLOW	HYDROCD	1DAY	01JAN1893 - METADATA *
T13251	- - - - - -	11194200	FLOW	HYDROCD	1DAY	01JAN1965 - METADATA *
T13207	- - - - - -	11195500	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T13001	- - - - - -	11196000	FLOW	HYDROCD	1DAY	01JAN1894 - METADATA *
T12533	- - - - - -	11197000	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T2789	- - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1968 - METADATA *
T13397	- - - - - -	11197250	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T13592	- - - - - -	11197800	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T12768	- - - - - -	11199000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T13287	- - - - - -	11199500	FLOW	HYDROCD	1DAY	01JAN1942 - METADATA *
T12722	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01JAN1988 - METADATA *
T12965	- - - - - -	11200000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T13256	- - - - - -	11200800	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T14716	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13698	- - - - - -	11201200	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T14236	- - - - - -	11204680	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T22687	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T2799	- - - - - -	11204700	STORAGE	HYDROCD	1DAY	01JAN1961 - METADATA *
T14097	- - - - - -	11204900	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T18136	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T13662	- - - - - -	11205000	FLOW	HYDROCD	1DAY	01JAN1953 - METADATA *
T13702	- - - - - -	11210850	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T14177	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T14418	- - - - - -	11210930	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T22044	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T14589	- - - - - -	11210950	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T22616	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T14633	- - - - - -	11211300	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T22040	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T14844	- - - - - -	11211500	FLOW	HYDROCD	1DAY	01JAN1918 - METADATA *
T14677	- - - - - -	11211785	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T20064	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T14276	- - - - - -	11211790	FLOW	HYDROCD	1DAY	01JAN1970 - METADATA *
T2829	- - - - - -	11221000	STORAGE	HYDROCD	1DAY	01JAN1951 - METADATA *
T12702	- - - - - -	11221500	FLOW	HYDROCD	1DAY	01JAN1953 - METADATA *
T15452	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4337	- - - - - -	11222000	FLOW	HYDROCD	1DAY	01JAN1895 - METADATA *
T13916	- - - - - -	11224500	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T15468	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T14911	- - - - - -	11225000	FLOW	HYDROCD	1DAY	01JAN1931 - METADATA *
T14951	- - - - - -	11253310	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T15596	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T15184	- - - - - -	11253500	FLOW	HYDROCD	1DAY	01JAN1947 - METADATA *
T24320	- - - - - -	ANGIOLA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T18845	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T17179	- - - - - -	ARVIN-EDISON	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17178	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T3503	- - - - - -	AT GARCIA BRIDGE	FLOW	CESPK	1HOUR	01MAR1997 - 01SEP1999
T3512	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1997 - METADATA *
T15756	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1400	- - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *
T3501	- - - - - -	AT HOUSTON	FLOW	CESPK	1HOUR	01MAR1997 - 01SEP1999
T3510	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1997 - METADATA *
T15740	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1397	- - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *
T3502	- - - - - -	AT MCKAY POINT	FLOW	CESPK	1HOUR	01MAR1997 - 01SEP1999*
T3511	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1997 - METADATA *
T15745	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T142	- - - - - -	AT SUCCESS	FLOW	CESPKEST	1DAY	01JAN1901 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL01.DSS** - *Continued*

T3507	- - - - - -	AT TRENTON WEIR	FLOW	CESPK	1HOUR	01MAR1997 - 01SEP1999*
T3509	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1997 - METADATA *
T15743	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1401	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAR1997 - METADATA *
T24329	- - - - - -	AVENAL-9 SSE	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T23036	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T15994	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T21012	- - - - - -	BAKERSFIELD	PRECIP-INC	TD3200	1DAY	01JAN1927 - METADATA *
T21408	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1927 - METADATA *
T15167	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1927 - METADATA *
T17183	- - - - - -	BAKERSFIELD BONANZA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17182	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T17207	- - - - - -	BAKERSFIELD GREENLEE	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17206	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T13979	- - - - - -	BAKERSFIELD MEADOWS	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T24076	- - - - - -	BAKERSFIELD-MEADOWS FIELD	PRECIP-INC	TD3200	1DAY	01JAN1937 - METADATA *
T14881	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1937 - METADATA *
T23044	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1937 - METADATA *
T17231	- - - - - -	BELRIDGE	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17230	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T1	- - - - - -	BIG DRY CR	FLOW-RES IN	PHASE1	1HOUR	01MAR1995 - METADATA *
T5	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	PHASE1	1HOUR	01MAR1995 - METADATA *
T2	- - - - - -	BIG DRY CREEK	FLOW	PHASE1	1HOUR	01MAR1995 - METADATA *
T15257	- - - - - -	BIG DRY CREEK RESERVOIR	PRECIP-INC	FMFCD	1HOUR	01OCT1995 - METADATA *
T322	- - - - - -	BIG DRY CREEK WASTEWAY	FLOW	PHASE1	1HOUR	01DEC1996 - METADATA *
T16371	- - - - - -	BLACKWELLS CORNER	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T20403	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1962 - METADATA *
T16370	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T19451	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T22957	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T23801	- - - - - -	BUTTONWILLOW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T17482	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T23011	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T22570	- - - - - -	CALIF HOT SPRINGS	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T16583	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T17255	- - - - - -	CANTUA CREEK	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17254	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T17279	- - - - - -	CARUTHERS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17278	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T15989	- - - - - -	CHOLAME ALLEY RANCH	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T24266	- - - - - -	CHOLAME-ALLEY RANCH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T24402	- - - - - -	COALINGA	PRECIP-INC	TD3200	1DAY	01JAN1941 - METADATA *
T13917	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T21936	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1941 - METADATA *
T19674	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1941 - METADATA *
T17777	- - - - - -	COALINGA 1 SE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T19616	- - - - - -	COALINGA-1 SE	PRECIP-INC	TD3200	1DAY	01JAN1911 - METADATA *
T15570	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1911 - METADATA *
T13020	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1911 - METADATA *
T24451	- - - - - -	COALINGA-14 NW	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T17303	- - - - - -	CORCORAN	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T14794	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1947 - METADATA *
T13913	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T17302	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T18367	- - - - - -	CORCORAN IRRIG DIST	PRECIP-INC	TD3240	1HOUR	01JAN1956 - METADATA *
T20024	- - - - - -	CORCORAN-IRRIGATION DISTRICT	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T22371	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T24854	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T18512	- - - - - -	DEAD HORSE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T24483	- - - - - -	DELANO	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T20722	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1973 - METADATA *
T18917	- - - - - -	EXETER FAUVER RANCH	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T20029	- - - - - -	EXETER-FAUVER RANCH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T17327	- - - - - -	FAMOSO	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17326	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T15306	- - - - - -	FANCHER CREEK RESERVOIR	PRECIP-INC	FMFCD	1HOUR	01SEP1995 - METADATA *
T20864	- - - - - -	FIVE POINTS-5 SSW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T23342	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T23367	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T16236	- - - - - -	FIVEPOINTS WSFS USDA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16235	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL01.DSS** - *Continued*

T17351	- - - - - -	FRESNO FSU USDA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17350	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T16395	- - - - - -	FRESNO STATE	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16394	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T24530	- - - - - -	FRESNO-AIR TERMINAL	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T18310	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T23431	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T22101	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T23761	- - - - - -	GLENNVILLE	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T21533	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1950 - METADATA *
T23506	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1950 - METADATA *
T16504	- - - - - -	GLENNVILLE FULTON RN	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T23590	- - - - - -	GLENNVILLE-FULTON RNGR STN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T15938	- - - - - -	GLENNVILLE-MORROW RANCH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T22732	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T21756	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T24570	- - - - - -	HANFORD-1 S	PRECIP-INC	TD3200	1DAY	01JAN1927 - METADATA *
T19848	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1927 - METADATA *
T20821	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1927 - METADATA *
T49	- - - - - -	HAWKEYE @TRM	FLOW	CESPK	1DAY	01JAN1961 - METADATA *
T16252	- - - - - -	HERNANDEZ 7 SE	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T24608	- - - - - -	HERNANDEZ-7 SE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T24613	- - - - - -	HURON	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T22721	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1949 - METADATA *
T16299	- - - - - -	KETTLEMAN	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16298	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T21447	- - - - - -	KETTLEMAN CITY	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T20073	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T23627	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *
T23775	- - - - - -	KETTLEMAN-STATION	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T23360	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T23401	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4549	- - - - - -	KINGS R BLW ARMY WEIR	FLOW	CESPK	1HOUR	01JUN1995 - 01MAR1999*
T4544	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T15739	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4602	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKINST	1HOUR	01MAY1995 - METADATA *
T2017	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAY1995 - METADATA *
T5176	- - - - - -	KINGS R BLW CRESCENT	FLOW	CESPK	1HOUR	01JUN1995 - 01SEP1999*
T5173	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T15741	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5211	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKINST	1HOUR	01MAY1995 - METADATA *
T2323	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01MAY1995 - METADATA *
T17375	- - - - - -	LAMONT-9	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17374	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T17399	- - - - - -	LAMONT-93	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17398	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T14612	- - - - - -	LEMON COVE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T23669	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T22972	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T4925	- - - - - -	LEMONCOVE @TRM	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T18	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1961 - METADATA *
T15744	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2001	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T16419	- - - - - -	LINDCOVE	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16418	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T24208	- - - - - -	LINDSAY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T22666	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T23314	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3	- - - - - -	LITTLE DRY CREEK @ BDC	FLOW	PHASE1	1HOUR	01MAR1995 - METADATA *
T17423	- - - - - -	LOST HILLS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T23936	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1948 - METADATA *
T16714	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T17422	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T23978	- - - - - -	MARICOPA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T19126	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T23797	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T17447	- - - - - -	MCFARLAND KERN FARMS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17446	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T17471	- - - - - -	MENDOTA MURIETTAUSDA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T17470	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T22906	- - - - - -	MIDDLEWATER	PRECIP-INC	TD3200	1DAY	01JAN1910 - METADATA *
T20049	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1910 - METADATA *
T23222	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1910 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL01.DSS** - *Continued*

T23502	- - - - - -	ORANGE COVE	PRECIP-INC	TD3200	1DAY	01JAN1930 - METADATA *
T21356	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1931 - METADATA *
T23648	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1931 - METADATA *
T24707	- - - - - -	PANOCHE JUNCTION	PRECIP-INC	TD3200	1DAY	01JAN1937 - METADATA *
T17337	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1937 - METADATA *
T22205	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1937 - METADATA *
T24152	- - - - - -	PARKFIELD	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T18124	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01FEB1970 - METADATA *
T21402	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1960 - METADATA *
T14468	- - - - - -	PARKFIELD 7 NNW	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T16248	- - - - - -	PARKFIELD 8 NNW	PRECIP-INC	TD3240	1HOUR	01MAY1952 - METADATA *
T19380	- - - - - -	PARKFIELD-7 NNW	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T16347	- - - - - -	PARLIER	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16346	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T21076	- - - - - -	PIEDRA	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T150	- - - - - -	PINE FLAT	ELEV	CESPK	1DAY	01JAN1953 - METADATA *
T156	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-NAT	CESPK	1DAY	01JAN1953 - METADATA *
T6079	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T34	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1953 - METADATA *
T15746	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6342	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T195	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1953 - METADATA *
T15747	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6191	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T46	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T15865	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T116	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1953 - METADATA *
T2826	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T157	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1953 - METADATA *
T118	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1953 - METADATA *
T171	- - - - - -	- - - - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1953 - METADATA *
T6934	- - - - - -	PIONEER @SCC	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T91	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1960 - METADATA *
T15748	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3392	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T24575	- - - - - -	PORTERVILLE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T16619	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T23778	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T22111	- - - - - -	POSEY-3 E	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T22876	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954 - METADATA *
T23251	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954 - METADATA *
T15236	- - - - - -	POSEY-4 ENE	PRECIP-INC	TD3200	1DAY	01JAN1960 - METADATA *
T23450	- - - - - -	PRIEST VALLEY	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T22677	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T23411	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T15356	- - - - - -	REDBANK DETENTION BASIN	PRECIP-INC	FMFCD	1HOUR	01SEP1995 - METADATA *
T22407	- - - - - -	SAN EMIGDIO-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T22481	- - - - - -	SANTA RITA-PEAK	PRECIP-INC	TD3200	1DAY	01JAN1974 - METADATA *
T16260	- - - - - -	SHAFTER USDA	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16259	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T20949	- - - - - -	SLACK CREEK	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T17140	- - - - - -	SLACK-CREEK	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T16275	- - - - - -	STRATFORD	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16274	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T169	- - - - - -	SUCCESS	ELEV	CESPK	1DAY	01JAN1960 - METADATA *
T7181	- - - - - -	- - - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T84	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1960 - METADATA *
T15752	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7127	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T56	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1959 - METADATA *
T15749	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7390	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T167	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1960 - METADATA *
T15750	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7318	- - - - - -	- - - - - - - - - - - - - - - -	FLOW-SPILL	CESPK	1HOUR	01JAN1995 - 01SEP1999
T163	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T15751	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7265	- - - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T120	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T15877	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T128	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKOBS	1DAY	01JAN1959 - METADATA *
T3552	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T108	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1959 - METADATA *
T66	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1959 - METADATA *
T94	- - - - - -	- - - - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1960 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL01.DSS** - *Continued*

T15551	- - - - - -	TAFT	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T13485	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T23346	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1994 - METADATA *
T24157	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1994 - METADATA *
T24406	- - - - - -	TEJON-RANCHO	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T13489	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T24192	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T21541	- - - - - -	TULEFIELD	PRECIP-INC	TD3200	1DAY	01JAN1959 - METADATA *
T17820	- - - - - -	UHL R S	PRECIP-INC	TD3240	1HOUR	01JAN1965 - METADATA *
T24469	- - - - - -	VISALIA	PRECIP-INC	TD3200	1DAY	01JAN1927 - METADATA *
T23290	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1927 - METADATA *
T20017	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1927 - METADATA *
T16323	- - - - - -	VISALIA ICI AMERICAS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16322	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T24567	- - - - - -	WASCO	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T23210	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T18444	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T21898	- - - - - -	WESTHAVEN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T23956	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1964 - METADATA *
T23249	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1964 - METADATA *
T16443	- - - - - -	WESTLANDS	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T16442	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **TUL02.DSS**

Catalog Created on Dec 20, 1999 at 15:20 File Created on Aug 25, 1999
Number of Records: 10962 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T7152	UPPER KERN	11185300	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T7215	- - - - - -	11185350	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T7256	- - - - - -	11185400	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T7319	- - - - - -	11185500	FLOW	HYDROCD	1DAY	01JAN1920 - METADATA *
T7495	- - - - - -	11185600	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T7532	- - - - - -	11186000	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T7686	- - - - - -	11186001	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T7730	- - - - - -	11186340	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T7762	- - - - - -	11186360	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T7794	- - - - - -	11186380	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T7810	- - - - - -	11186500	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T7821	- - - - - -	11187000	FLOW	HYDROCD	1DAY	01JAN1904 - METADATA *
T12957	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T7971	- - - - - -	11187500	FLOW	HYDROCD	1DAY	01JAN1909 - METADATA *
T12982	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T8139	- - - - - -	11188000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T8192	- - - - - -	11188200	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T8246	- - - - - -	11189500	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T7190	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T7261	- - - - - -	11189700	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T8393	- - - - - -	11190000	FLOW	HYDROCD	1DAY	01JAN1928 - METADATA *
T8479	- - - - - -	11190500	FLOW	HYDROCD	1DAY	01JAN1984 - METADATA *
T2866	- - - - - -	- - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1953 - METADATA *
T7458	- - - - - -	11191000	FLOW	HYDROCD	1DAY	01JAN1945 - METADATA *
T13046	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T7334	- - - - - -	11191001	FLOW	HYDROCD	1DAY	01JAN1977 - METADATA *
T8522	- - - - - -	11192000	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T8600	- - - - - -	11192500	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T8629	- - - - - -	11192501	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T8705	- - - - - -	11192950	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T12705	- - - - - -	11193000	FLOW	HYDROCD	1DAY	01JAN1953 - METADATA *
T7503	- - - - - -	11195600	FLOW	HYDROCD	1DAY	01JAN1964 - METADATA *
T8751	- - - - - -	11196400	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T8664	- - - - - -	11196420	FLOW	HYDROCD	1DAY	01JAN1962 - METADATA *
T8849	- - - - - -	APACHE CAMP	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T13501	- - - - - -	APACHE-CAMP	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T2454	- - - - - -	AT KERNVILLE	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T15	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1953 - METADATA *
T6935	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1083	- - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - 01SEP1999
T24	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7082	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T13597	- - - - - -	BACKUS-RANCH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T13028	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T13181	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T981	- - - - - -	BEACH MEADOWS	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T69	- - - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T7325	- - - - - -	- - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T983	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T62	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1982 - METADATA *
T7064	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T985	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T7271	- - - - - -	BIG WHITNEY MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T7229	- - - - - -	BIGHORN PLATEAU	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T7318	- - - - - -	BONITA MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3288	- - - - - -	BOREL CANAL @ISB	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T120	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1952 - METADATA *
T6931	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T1472	- - - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - 01SEP1999
T153	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7084	- - - - - -	- - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11598	- - - - - -	CANTIL	PRECIP-INC	TD3200	1DAY	01JAN1955 - METADATA *
T13195	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1955 - METADATA *
T11284	- - - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1955 - METADATA *

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T5414	- - - - -	CASA VIEJA MDWS	SNOW-WEQV	CDEC-CD	1HOUR	01SEP1987 - 01SEP1999
T388	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1985 - METADATA *
T7067	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T5416	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01SEP1987 - METADATA *
T7304	- - - - -	CASA VIEJA MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T437	- - - - -	CHAGOOPA PLATEAU	PRECIP-INC	CDEC-CD	1DAY	01JAN1996 - METADATA *
T4606	- - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1986 - 01SEP1999*
T423	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1984 - METADATA *
T7070	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T4609	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1986 - METADATA *
T8674	- - - - -	CHUCHUPATE RS	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T13115	- - - - -	CHUCHUPATE-RANGER STN	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T7235	- - - - -	COTTONWOOD PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T4075	- - - - -	CRABTREE MEADOW	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T496	- - - - -	- - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T7247	- - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T4076	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T490	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1982 - METADATA *
T7073	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T4077	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T9733	- - - - -	FRAZIER PARK 9 SW	PRECIP-INC	TD3240	1HOUR	01MAR1994 - METADATA *
T10312	- - - - -	GREENHORN-MTN PARK	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T7253	- - - - -	GUYOT FLAT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T11881	- - - - -	HAIWEE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T13233	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T13010	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T12363	- - - - -	INYOKERN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T11773	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T12113	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T167	- - - - -	ISABELLA	ELEV	CESPK	1DAY	01JAN1952 - METADATA *
T3287	- - - - -	- - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T124	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1952 - METADATA *
T6934	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T3180	- - - - -	- - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T13	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1952 - METADATA *
T6932	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T3676	- - - - -	- - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T173	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1952 - METADATA *
T6933	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T3474	- - - - -	- - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T80	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T6987	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T104	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	CESPKOBS	1DAY	01JAN1952 - METADATA *
T1471	- - - - -	- - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T158	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1952 - METADATA *
T96	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1952 - METADATA *
T148	- - - - -	- - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1952 - METADATA *
T13465	- - - - -	JOHNSONDALE	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T12488	- - - - -	KERN RIVER-INTAKE 3	PRECIP-INC	TD3200	1DAY	01JAN1952 - METADATA *
T13661	- - - - -	KERN RIVER-PH 1	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T13350	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T13127	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T11400	- - - - -	KERN RIVER-PH 3	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T11923	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T12323	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T13697	- - - - -	LEBEC	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T7297	- - - - -	LITTLE WHITNEY MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7478	- - - - -	LONE PINE COTTNWD PH	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T12878	- - - - -	LONE PINE-COTTONWOOD PH	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10210	- - - - -	LORAINE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10818	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T11312	- - - - -	LORAINE 5 NNE	PRECIP-INC	TD3240	1HOUR	01MAY1987 - METADATA *
T13723	- - - - -	MOJAVE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T10246	- - - - -	- - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01NOV1959 - METADATA *
T12256	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1964 - METADATA *
T12371	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1964 - METADATA *
T13735	- - - - -	MOJAVE-2 ESE	PRECIP-INC	TD3200	1DAY	01JAN1963 - METADATA *
T12693	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T11593	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1963 - METADATA *
T13095	- - - - -	MOUNT BECKENRIDGE	PRECIP-INC	TD3200	1DAY	01JAN1954 - METADATA *
T13160	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1954 - METADATA *
T13489	- - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1954 - METADATA *

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T12981	- - - - -	NEENACH	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T12974	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T10150	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T13513	- - - - -	PASCOES	PRECIP-CUM	CDEC-CD	1HOUR	01JUL1988 - METADATA *
T2875	- - - - -	- - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T17	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1971 - METADATA *
T7005	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T13514	- - - - -	- - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01JUL1988 - 01SEP1999
T1313	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1971 - METADATA *
T7076	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2876	- - - - -	- - - - - - - - - - - -	- - - - - -	CESPK	1HOUR	01JAN1995 - 01SEP1999
T22	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1971 - METADATA *
T7089	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T13515	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JUL1988 - METADATA *
T3041	- - - - -	- - - - - - - - - - - -	- - - - - -	CESPK	1HOUR	01JAN1995 - 01SEP1999
T43	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7093	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T72	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T64	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T13743	- - - - -	PATTIWAY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T13142	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1966 - METADATA *
T13314	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1966 - METADATA *
T7311	- - - - -	QUINN RANGER STATION	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7290	- - - - -	RAMSHAW MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7277	- - - - -	ROCK CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T7283	- - - - -	ROUND MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T11898	- - - - -	SANDBERG	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T12708	- - - - -	SANDBERG-PTRL STN FC130B	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T13495	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1963 - METADATA *
T9822	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1962 - METADATA *
T13366	- - - - -	SANDBERG-WSMO	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T10123	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T13521	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7259	- - - - -	SANDY MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T7241	- - - - -	SIBERIAN PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T7156	- - - - -	TEHACHAPI	PRECIP-INC	CIMIS	1HOUR	01JAN1995 - METADATA *
T12429	- - - - -	- - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1947 - METADATA *
T7155	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CIMIS	1HOUR	01JAN1995 - METADATA *
T8805	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T13490	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T12667	- - - - -	TEHACHAPI 4 SE	PRECIP-INC	TD3200	1DAY	01JAN1997 - METADATA *
T12758	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1997 - METADATA *
T12819	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1997 - METADATA *
T13802	- - - - -	TEHACHAPI AIRPORT	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T11608	- - - - -	TEHACHAPI AP	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T19729	- - - - -	TUNNEL GUARD STA	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T1930	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1983 - METADATA *
T7079	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T19731	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T7265	- - - - -	TYNDALL CREEK	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T2543	- - - - -	UPR TYNDALL CR	SNOW-WEQV	CESPK	1HOUR	01JAN1995 - 01SEP1999
T13	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1968 - METADATA *
T7095	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2637	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999
T37	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7099	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T33	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T29	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T13803	- - - - -	WELDON	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T11643	- - - - -	- - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T2907	- - - - -	WET MDW	SNOW-WEQV	CESPK	1HOUR	01MAR1995 - 01SEP1999*
T49	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1968 - METADATA *
T7101	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3077	- - - - -	- - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01MAR1995 - 01SEP1999*
T83	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1981 - METADATA *
T7105	- - - - -	- - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T74	- - - - -	- - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T66	- - - - -	- - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T13168	- - - - -	WOFFORD HEIGHTS-KERNVILLE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **TUL03.DSS**

Catalog Created on Dec 20, 1999 at 15:23 File Created on Aug 25, 1999
Number of Records: 7001 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T3419	KINGS RIVER	11212500	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T3544	- - - - - -	11213000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T3763	- - - - - -	11213500	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA *
T3607	- - - - - -	11214000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T3751	- - - - - -	11214200	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T3468	- - - - - -	11214400	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T3955	- - - - - -	11214500	FLOW	HYDROCD	1DAY	01JAN1922 - METADATA *
T2904	- - - - - -	- - - - - - - - - - - - - - - -	STORAGE	HYDROCD	1DAY	01JAN1984 - METADATA *
T4026	- - - - - -	11214540	FLOW	HYDROCD	1DAY	01JAN1987 - METADATA *
T2906	- - - - - -	11214550	STORAGE	HYDROCD	1DAY	01JAN1970 - METADATA *
T4080	- - - - - -	11214600	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T2927	- - - - - -	11214800	STORAGE	HYDROCD	1DAY	01JAN1970 - METADATA *
T4207	- - - - - -	11214900	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T3632	- - - - - -	11215000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T4134	- - - - - -	11215500	FLOW	HYDROCD	1DAY	01JAN1924 - METADATA *
T4036	- - - - - -	11215800	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T3917	- - - - - -	11215810	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T3838	- - - - - -	11215820	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T3920	- - - - - -	11215830	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T3846	- - - - - -	11215840	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T4391	- - - - - -	11216000	FLOW	HYDROCD	1DAY	01JAN1926 - METADATA *
T4323	- - - - - -	11216050	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T2948	- - - - - -	11216100	STORAGE	HYDROCD	1DAY	01JAN1980 - METADATA *
T4295	- - - - - -	11216200	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T4518	- - - - - -	11216300	FLOW	HYDROCD	1DAY	01JAN1980 - METADATA *
T4332	- - - - - -	11216400	FLOW	HYDROCD	1DAY	01JAN1986 - METADATA *
T4510	- - - - - -	11216500	FLOW	HYDROCD	1DAY	01JAN1919 - METADATA *
T3420	- - - - - -	11216800	FLOW	HYDROCD	1DAY	01JAN1960 - METADATA *
T3434	- - - - - -	11217000	FLOW	HYDROCD	1DAY	01JAN1921 - METADATA *
T3711	- - - - - -	11217500	FLOW	HYDROCD	1DAY	01JAN1923 - METADATA *
T4458	- - - - - -	11218000	FLOW	HYDROCD	1DAY	01JAN1919 - METADATA *
T4665	- - - - - -	11218400	FLOW	HYDROCD	1DAY	01JAN1959 - METADATA *
T4764	- - - - - -	11218499	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T4128	- - - - - -	11218500	FLOW	HYDROCD	1DAY	01JAN1961 - METADATA *
T6429	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T3858	- - - - - -	11218501	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T3866	- - - - - -	11218700	FLOW	HYDROCD	1DAY	01JAN1969 - METADATA *
T4787	- - - - - -	11219000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T4881	- - - - - -	11220000	FLOW	HYDROCD	1DAY	01JAN1953 - METADATA *
T4823	- - - - - -	11220500	FLOW	HYDROCD	1DAY	01JAN1952 - METADATA *
T4933	- - - - - -	11221700	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T5564	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T93	- - - - - -	AT PIEDRA	FLOW	CESPK	1DAY	01JAN1895 - METADATA *
T3774	- - - - - -	BALCH POWER HOUSE	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T5095	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01FEB1950 - METADATA *
T3602	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1962 - METADATA *
T3425	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1962 - METADATA *
T5478	- - - - - -	BEARD MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5465	- - - - - -	BENCH LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T5557	- - - - - -	BIG MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5447	- - - - - -	BISHOP PASS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3357	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01JAN1988 - 01SEP1999*
T158	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T5353	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T3362	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01JAN1988 - METADATA *
T5468	- - - - - -	BLACKCAP BASIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T759	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1989 - 01MAY1999*
T204	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1989 - METADATA *
T5356	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T760	- - - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1989 - METADATA *
T5177	- - - - - -	BLW NF KINGS	FLOW	CESPK	1HOUR	01JUN1995 - 01SEP1999
T96	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1953 - METADATA *
T5242	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5185	- - - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKINST	1HOUR	01JAN1995 - METADATA *
T2309	- - - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T5459	- - - - - -	BULLFROG LAKE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL03.DSS** - *Continued*

T3818	- - - - -	CEDAR GROVE	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T3634	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T3457	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T4910	- - - - -	CHARLOTTE LAKE	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T445	- - - - -	- - - - - - - - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T4912	- - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999
T441	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1984 - METADATA *
T5359	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4914	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T5454	- - - - -	CHARLOTTE RIDGE	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T5529	- - - - -	COURTRIGHT	SNOW-WEQV	CDEC	IR-DECADE	01JAN1980 - METADATA *
T5593	- - - - -	DODSON'S MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T5654	- - - - -	DUNLAP SHINGLE MILL	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T3834	- - - - -	DUNLAP-SHINGLE MILL	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3650	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3473	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T3836	- - - - -	EAST VIDETTE-MEADOW	PRECIP-INC	TD3200	1DAY	01JAN1949 - METADATA *
T5571	- - - - -	FRED MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3837	- - - - -	GRANT GROVE	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5805	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T5578	- - - - -	- - - - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3651	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T3474	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5300	- - - - -	HAAS	PRECIP-INC	PG&E	1DAY	01JAN1997 - METADATA *
T5538	- - - - -	HELMS MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5564	- - - - -	HORSE CORRAL MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T3883	- - - - -	INDEPENDENCE	PRECIP-INC	TD3200	1DAY	01JAN1926 - METADATA *
T6055	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T3697	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1926 - METADATA *
T3520	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1926 - METADATA *
T6400	- - - - -	INDEPENDENCE ONION V	PRECIP-INC	TD3240	1HOUR	01DEC1948 - METADATA *
T3950	- - - - -	INDEPENDENCE-ONION VALLY	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T5522	- - - - -	LONG MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T6176	- - - - -	MITCHELL MDW	SNOW-WEQV	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T125	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1955 - METADATA *
T5376	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6343	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999
T197	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T5380	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T193	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T189	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T11658	- - - - -	MITCHELL MEADOW	SNOW-WEQV	CDEC-CD	1HOUR	01AUG1988 - 01SEP1999*
T1189	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T5362	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T11663	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01AUG1988 - METADATA *
T167	- - - - -	N FK KINGS R BL DINKEY CK (PG&E)	FLOW	CDEC-WEB	1HOUR	01AUG1998 - METADATA *
T83	- - - - -	- - - - - - - - - - - - - - - -	STAGE	CDEC-WEB	1HOUR	01AUG1998 - METADATA *
T5621	- - - - -	- - - - - - - - - - - - - - - -	STAGE-FLOW	CDEC-WEB	(null)	(null)
T4550	- - - - -	NR PIEDRA	FLOW	CESPK	1HOUR	01JUN1995 - 01SEP1999
T6	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1957 - METADATA *
T5240	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T10076	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	CESPKINST	1HOUR	01JAN1995 - METADATA *
T19	- - - - -	- - - - - - - - - - - - - - - -	FLOW-NAT	CESPK	1DAY	01JAN1953 - METADATA *
T2002	- - - - -	- - - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T3954	- - - - -	PINE FLAT-DAM	PRECIP-INC	TD3200	1DAY	01JAN1964 - METADATA *
T3764	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1975 - METADATA *
T3587	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1975 - METADATA *
T5545	- - - - -	POST CORRAL MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5475	- - - - -	RATTLESNAKE CREEK BASIN	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T5501	- - - - -	ROUND CORRAL	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5508	- - - - -	ROWELL MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T18903	- - - - -	SAWMILL	SNOW-WEQV	CDEC-CD	1HOUR	01AUG1988 - 01SEP1999
T1620	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T5366	- - - - -	- - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T18905	- - - - -	- - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01AUG1988 - METADATA *
T5493	- - - - -	SCENIC MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1970 - METADATA *
T3984	- - - - -	SOUTH LAKE	PRECIP-INC	TD3200	1DAY	01JAN1975 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL03.DSS** - *Continued*

T17925	- - - - -	STATE LAKES	SNOW-WEQV	CDEC-CD	1HOUR	01AUG1988 - 01MAY1999*
T1836	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T5369	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6177	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T60	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1954 - METADATA *
T5383	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T17930	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01AUG1988 - METADATA *
T6344	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	CESPK	1HOUR	01JAN1995 - 01JUL1999
T186	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1968 - METADATA *
T5387	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T130	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T81	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T5531	- - - - -	STATUM MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T20065	- - - - -	UPPER BURNT CORR	SNOW-WEQV	CDEC-CD	1HOUR	01NOV1986 - 01SEP1999
T1981	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1986 - METADATA *
T5372	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T20068	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01NOV1986 - METADATA *
T5585	- - - - -	UPPER BURNT CORRAL MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T5496	- - - - -	VIDETTE MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T5859	- - - - -	WOODCHUCK MDW	SNOW-WEQV	CESPK	1HOUR	01JAN1995 - 01OCT1998
T66	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1954 - METADATA *
T5389	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T5969	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01JUL1998
T109	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T5393	- - - - -	- - - - - - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T105	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T101	- - - - -	- - - - - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T5515	- - - - -	WOODCHUCK MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **TUL04.DSS**

Catalog Created on Dec 20, 1999 at 15:24 File Created on Aug 25, 1999
Number of Records: 5253 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T3541	LAKE KAWEAH	11206000	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T3706	- - - - - -	11206500	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T3723	- - - - - -	11206501	FLOW	HYDROCD	1DAY	01JAN1948 - METADATA *
T3861	- - - - - -	11206700	FLOW	HYDROCD	1DAY	01JAN1983 - METADATA *
T3846	- - - - - -	11207500	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T3657	- - - - - -	11208000	FLOW	HYDROCD	1DAY	01JAN1949 - METADATA *
T3927	- - - - - -	11208001	FLOW	HYDROCD	1DAY	01JAN1950 - METADATA *
T4144	- - - - - -	11208500	FLOW	HYDROCD	1DAY	01JAN1966 - METADATA *
T4244	- - - - - -	11208570	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T4210	- - - - - -	11208600	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T4299	- - - - - -	11208601	FLOW	HYDROCD	1DAY	01JAN1993 - METADATA *
T4159	- - - - - -	11208610	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T4100	- - - - - -	11208620	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T4322	- - - - - -	11208625	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T3996	- - - - - -	11208720	FLOW	HYDROCD	1DAY	01JAN1974 - METADATA *
T4352	- - - - - -	11208730	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T4349	- - - - - -	11208731	FLOW	HYDROCD	1DAY	01JAN1951 - METADATA *
T4418	- - - - - -	11209500	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T4456	- - - - - -	11209900	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T5030	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4470	- - - - - -	11210000	FLOW	HYDROCD	1DAY	01JAN1911 - METADATA *
T4405	- - - - - -	11210100	FLOW	HYDROCD	1DAY	01JAN1958 - METADATA *
T4214	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4292	- - - - - -	11210500	FLOW	HYDROCD	1DAY	01JAN1902 - METADATA *
T2965	- - - - - -	11210900	STORAGE	HYDROCD	1DAY	01JAN1961 - METADATA *
T14905	- - - - - -	11212000	FLOW	HYDROCD	1DAY	01JAN1944 - METADATA *
T6753	- - - - - -	ASH MOUNTAIN	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6918	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T5667	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1947 - METADATA *
T32	- - - - - -	AT TERMINUS	FLOW	CESPKEST	1DAY	01JAN1903 - METADATA *
T4935	- - - - - -	AT THREE RIVERS	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T163	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7201	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2987	- - - - - -	- - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T4681	- - - - - -	ATWELL	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999*
T19	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T7231	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2052	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01MAR1994 - 01SEP1999
T4863	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T7288	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T4807	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T4759	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T7037	- - - - - -	BADGER	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T9668	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T6183	- - - - - -	BEAR TRAP MDW	PRECIP-INC	CESPK	1HOUR	01OCT1995 - 01AUG1999*
T154	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T7235	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6351	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01OCT1995 - 01SEP1999
T6339	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1995 - METADATA *
T7292	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T6282	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T6259	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T11995	- - - - - -	FAREWELL GAP	SNOW-WEQV	CDEC	IR-DECADE	01JAN1950 - METADATA *
T5058	- - - - - -	GIANT FOREST	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T129	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T7238	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T7040	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1930 - METADATA *
T10274	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T12021	- - - - - -	- - - - - - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T5059	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T90	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1970 - METADATA *
T7294	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T2069	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01MAR1994 - 01SEP1999
T120	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1DAY	01JAN1972 - METADATA *
T7298	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	- - - -	1HOUR	METADATA
T97	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T6972	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1931 - METADATA *
T93	- - - - - -	- - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T6493	- - - - - -	- - - - - - - - - - - - - -	- - - - - -	TD3200	1DAY	01JAN1931 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL04.DSS** - *Continued*

T5861	- - - - -	HOCKETT MDW	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T180	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1965 - METADATA *
T7241	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T2079	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01MAR1994 - 01SEP1999
T197	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7302	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T193	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T189	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T12008	- - - - -	HOCKETT MEADOWS	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T7049	- - - - -	LODGEPOLE	PRECIP-INC	TD3200	1DAY	01JAN1951 - METADATA *
T10520	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	TD3240	1HOUR	01JAN1969 - METADATA *
T5947	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1968 - METADATA *
T5958	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1968 - METADATA *
T12015	- - - - -	MINERAL KING	SNOW-WEQV	CDEC	IR-DECADE	01JAN1940 - METADATA *
T12000	- - - - -	PANTHER MEADOW	SNOW-WEQV	CDEC	IR-DECADE	01JAN1920 - METADATA *
T141	- - - - -	TERMINUS	ELEV	CESPK	1DAY	01JAN1961 - METADATA *
T4945	- - - - -	- - - - - - - - - - - - - - -	FLOW	CESPK	1HOUR	01MAR1994 - 01SEP1999
T116	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1961 - METADATA *
T7198	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T5304	- - - - -	- - - - - - - - - - - - - - -	FLOW-RES IN	CESPK	1HOUR	01JAN1995 - 01SEP1999
T66	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1960 - METADATA *
T7199	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T5694	- - - - -	- - - - - - - - - - - - - - -	FLOW-RES OUT	CESPK	1HOUR	01JAN1995 - 01SEP1999
T187	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1961 - METADATA *
T7200	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T5509	- - - - -	- - - - - - - - - - - - - - -	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T51	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1DAY	01JAN1988 - METADATA *
T7246	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	- - - -	1HOUR	METADATA
T137	- - - - -	- - - - - - - - - - - - - - -	- - - - - - -	CESPKOBS	1DAY	01JAN1961 - METADATA *
T2472	- - - - -	- - - - - - - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T178	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	CESPKOBS	1DAY	01JAN1961 - METADATA *
T125	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	CESPKOBS	1DAY	01JAN1961 - METADATA *
T173	- - - - -	- - - - - - - - - - - - - - -	TOP CON STOR	CESPK	1DAY	01JAN1961 - METADATA *
T10880	- - - - -	THREE RIVERS 6 SE	PRECIP-INC	TD3240	1HOUR	01JAN1957 - METADATA *
T11384	- - - - -	THREE RIVERS ED PH 1	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T6272	- - - - -	THREE RIVERS-ED PH 2	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6998	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1948 - METADATA *
T4304	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T7045	- - - - -	THREE RIVERS-EDISON PH 1	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T6883	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1970 - METADATA *
T7024	- - - - -	- - - - - - - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1970 - METADATA

* Record time span has missing periods.

HECDSS Condensed Catalog of Record Pathnames in File **TUL05.DSS**

Catalog Created on Dec 20, 1999 at 15:25 File Created on Aug 25, 1999
Number of Records: 3934 DSS Version 6-JE
Sort Order: ABCFED

Tag	A Part	B Part	C Part	F Part	E Part	D Part
T2455	LAKE SUCCESS	11201450	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T2477	- - - - - -	11201456	FLOW	HYDROCD	1DAY	01JAN1994 - METADATA *
T2489	- - - - - -	11201500	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T2621	- - - - - -	11201700	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T2778	- - - - - -	11201800	FLOW	HYDROCD	1DAY	01JAN1908 - METADATA *
T2813	- - - - - -	11201850	FLOW	HYDROCD	1DAY	01JAN1996 - METADATA *
T2650	- - - - - -	11202000	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T2672	- - - - - -	11202001	FLOW	HYDROCD	1DAY	01JAN1939 - METADATA *
T2997	- - - - - -	11202700	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T2832	- - - - - -	11202710	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T2840	- - - - - -	11202711	FLOW	HYDROCD	1DAY	01JAN1988 - METADATA *
T2807	- - - - - -	11202750	FLOW	HYDROCD	1DAY	01JAN1978 - METADATA *
T2788	- - - - - -	11202751	FLOW	HYDROCD	1DAY	01JAN1985 - METADATA *
T3057	- - - - - -	11203000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T2882	- - - - - -	11203100	FLOW	HYDROCD	1DAY	01JAN1956 - METADATA *
T3105	- - - - - -	11203190	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T3022	- - - - - -	11203200	FLOW	HYDROCD	1DAY	01JAN1957 - METADATA *
T2952	- - - - - -	11203201	FLOW	HYDROCD	1DAY	01JAN1975 - METADATA *
T2889	- - - - - -	11203220	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T4836	- - - - - -	- - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T2919	- - - - - -	11203221	FLOW	HYDROCD	1DAY	01JAN1967 - METADATA *
T2975	- - - - - -	11203500	FLOW	HYDROCD	1DAY	01JAN1901 - METADATA *
T3180	- - - - - -	11204000	FLOW	HYDROCD	1DAY	01JAN1910 - METADATA *
T3147	- - - - - -	11204500	FLOW	HYDROCD	1DAY	01JAN1929 - METADATA *
T4853	- - - - - -	- - - - - - - - - -	- - - - - -	USGS	1HOUR	01OCT1988 - METADATA *
T4024	- - - - - -	CAMP WISHON	PRECIP-INC	TD3200	1DAY	01JAN1948 - METADATA *
T3287	- - - - - -	- - - - - - - - - -	- - - - - -	TD3240	1HOUR	01JUL1948 - METADATA *
T6981	- - - - - -	EAGLE CR	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999*
T117	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1964 - METADATA *
T5042	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T7048	- - - - - -	- - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T7040	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1995 - METADATA *
T5098	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T7018	- - - - - -	- - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T7014	- - - - - -	- - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T6780	- - - - - -	HOSSACK	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T113	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1963 - METADATA *
T5044	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T6856	- - - - - -	- - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T86	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1967 - METADATA *
T5102	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T62	- - - - - -	- - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1988 - METADATA *
T58	- - - - - -	- - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1988 - METADATA *
T3663	- - - - - -	MILO 5 NE	PRECIP-INC	TD3240	1HOUR	01JAN1957 - METADATA *
T6781	- - - - - -	MOUNTAIN HOME	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T36	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1963 - METADATA *
T5047	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T6866	- - - - - -	- - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999
T6855	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1995 - METADATA *
T5106	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T6829	- - - - - -	- - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T6821	- - - - - -	- - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T6737	- - - - - -	NR SPRINGVILLE	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T6734	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1995 - METADATA *
T5013	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T3288	- - - - - -	- - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T3838	- - - - - -	NR SUCCESS	FLOW	CESPK	1HOUR	01JAN1995 - 01SEP1999
T3832	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1995 - METADATA *
T5012	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T1710	- - - - - -	- - - - - - - - - -	STAGE	CESPK	1HOUR	01JAN1995 - METADATA *
T5125	- - - - - -	OLD ENTERPRISE MILL	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T13902	- - - - - -	QUAKING ASPEN	PRECIP-CUM	CDEC-CD	1HOUR	01OCT1985 - METADATA *
T1455	- - - - - -	- - - - - - - - - -	PRECIP-INC	CDEC-CD	1DAY	01JAN1987 - METADATA *
T5118	- - - - - -	- - - - - - - - - -	SNOW-WEQV	CDEC	IR-DECADE	01JAN1930 - METADATA *
T13903	- - - - - -	- - - - - - - - - -	- - - - - -	CDEC-CD	1HOUR	01OCT1985 - 01SEP1999*
T1448	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1981 - METADATA *
T5093	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T13904	- - - - - -	- - - - - - - - - -	TEMP-AIR	CDEC-CD	1HOUR	01OCT1985 - METADATA *

HECDSS Condensed Catalog of Record Pathnames in File **TUL05.DSS** - *Continued*

T6983	- - - - - -	ROGERS CAMP	PRECIP-INC	CESPK	1HOUR	01JAN1995 - 01AUG1999
T126	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1964 - METADATA *
T5051	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T7049	- - - - - -	- - - - - - - - - -	TEMP-AIR	CESPK	1HOUR	01JAN1995 - 01SEP1999*
T7041	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1DAY	01JAN1995 - METADATA *
T5112	- - - - - -	- - - - - - - - - -	- - - - - -	- - -	1HOUR	METADATA
T7019	- - - - - -	- - - - - - - - - -	TEMP-AIR MAX	CESPK	1DAY	01JAN1995 - METADATA *
T7015	- - - - - -	- - - - - - - - - -	TEMP-AIR MIN	CESPK	1DAY	01JAN1995 - METADATA *
T2970	- - - - - -	SPRINGVILLE R S	PRECIP-INC	TD3240	1HOUR	01JUL1948 - METADATA *
T4184	- - - - - -	SPRINGVILLE TULE HD	PRECIP-INC	TD3240	1HOUR	01OCT1956 - METADATA *
T4496	- - - - - -	SPRINGVILLE-3 ENE	PRECIP-INC	TD3200	1DAY	01JAN1950 - METADATA *
T2718	- - - - - -	SPRINGVILLE-7 ENE	PRECIP-INC	TD3200	1DAY	01JAN1953 - METADATA *
T4896	- - - - - -	SPRINGVILLE-R S	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T4871	- - - - - -	- - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1951 - METADATA *
T4901	- - - - - -	SPRINGVILLE-TULE HD	PRECIP-INC	TD3200	1DAY	01JAN1947 - METADATA *
T4254	- - - - - -	- - - - - - - - - -	TEMP-AIR MAX	TD3200	1DAY	01JAN1947 - METADATA *
T4613	- - - - - -	- - - - - - - - - -	TEMP-AIR MIN	TD3200	1DAY	01JAN1948 - METADATA *
T5058	- - - - - -	TULE	PRECIP-INC	PG&E	1DAY	01JAN1975 - METADATA

* Record time span has missing periods.